

**SFPP, L.P.** Operating Partnership

November 13, 2018

California Regional Water Quality Control Board Los Angeles Region 320 W. 4th Street, Suite 200 Los Angeles, California 90013

Re: Effluent Monitoring Report July through September 2018 SFPP, L.P. Norwalk Pump Station 15306 Norwalk Boulevard, Norwalk, California (NPDES No. CA0063509, CI No. 7497)

Attention: Information Technology Unit

In reference to the subject National Pollutant Discharge Elimination System (NPDES) permit, please find enclosed the Third Quarter 2018 Effluent Monitoring Report for the subject discharge.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on the <u>13</u> day of <u>November</u> 2018. at <u>4:17 p.m.</u>

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(signature)

<u>Stephen T. Defibaugh</u> (printed name)

Remediation Project Manager (title)



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Mr. Stephen Defibaugh Kinder Morgan, Inc. 1100 Town and Country Road, Suite 700 Orange, California 92868

November 13, 2018

#### Subject: Effluent Monitoring Report, July 1 to September 30, 2018 (Third Quarter 2018) SFPP Norwalk Pump Station, 15306 Norwalk Boulevard, Norwalk, California (NPDES No. CA0063509, CI No. 7497, Order No. R4-2016-0309)

#### Dear Mr. Defibaugh,

This report has been prepared by CH2M HILL Engineers, Inc. (CH2M), now a wholly owned subsidiary of Jacobs Engineering Group Inc. (Jacobs), on behalf of Kinder Morgan, Inc. (Kinder Morgan), to summarize National Pollutant Discharge Elimination System (NPDES) monitoring related to the discharge of treated groundwater from Kinder Morgan's product recovery and groundwater extraction (GWE) system. This system is located at the SFPP, L.P. (SFPP) Norwalk Pump Station within the Defense Fuel Support Point Norwalk (DFSP), at 15306 Norwalk Boulevard, Norwalk, California (the site; Figure 1).

This report describes NPDES monitoring activities during the period of July 1 to September 30, 2018. Kinder Morgan performed operations, maintenance, and monitoring tasks on the product recovery and GWE systems. This report has been prepared based on the NPDES monitoring conducted by Kinder Morgan.

# **Remediation Systems**

Kinder Morgan operates remediation systems consisting of soil vapor extraction (SVE), total fluids extraction (TFE) of free product and/or groundwater using a top-loading pump, GWE using a bottom-loading pump, and treatment of extracted soil vapors and groundwater to address the south-central and southeastern areas of the site. Biosparging is also employed in the south-central area to enhance natural attenuation of hydrocarbon constituents.

The remedial objectives are to contain and control the migration of hydrocarbon constituents in groundwater and soil vapor, and to remove hydrocarbon mass from soil and groundwater. The remediation system includes the following wells:

#### • South-Central Area

- 20 TFE/GWE wells
- 24 onsite and 6 offsite SVE wells (most collocated with TFE wells)
- 2 horizontal SVE wells
- 1 horizontal biosparge well
- Southeastern Area (24-inch Block Valve Area)
- 5 TFE/GWE wells
- 3 SVE wells (collocated with TFE wells)
- 1 horizontal biosparge well (not yet operable).

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The remediation system layout is shown on Figure 2. A brief description of each system is provided below.

#### Soil Vapor Extraction System

SVE is performed using a blower to remove soil vapors from the south-central and southeastern areas of the site. The extracted vapors are conveyed to a knock-out tank that separates entrained moisture from the soil vapor. Accumulated moisture in the knock-out tank is treated by the main groundwater treatment system (GWTS) described below. The soil vapors are then treated in a regenerative thermal oxidizer (RTO) where volatile organic compounds (VOCs) are converted to carbon dioxide and water prior to being discharged to the atmosphere. Operation of the GWTS and SVE systems is conducted in accordance with Permits to Operate (Permit Numbers [Nos.] G46188 A/N 578779 and G46187 A/N 578777, respectively; ID 110835) issued by the South Coast Air Quality Management District.

### **Groundwater Treatment System**

The main GWTS handles free product and groundwater recovered from the south-central and southeastern parts of the site. Free product and groundwater recovered by pneumatically operated, top-loading total fluid pumps and bottom-loading groundwater pumps are piped to a dissolved air floatation oil-water separator (DAF/OWS). Free product, if any, from the DAF/OWS is collected in a storage tank and transported to an offsite location. Water from the OWS is treated using liquid-phase granular activated carbon (LGAC). Treated water is routed through an onsite 3,000-gallon equalization tank. Two fluidized bed bioreactors installed downstream of the equalization tank treat fuel oxygenates such as tertiary butyl alcohol and methyl tertiary butyl ether. The treated groundwater then passes through polishing LGAC units prior to discharge to a storm drain that leads to Coyote Creek. Discharge to Coyote Creek is performed in accordance with the NPDES permit (Permit No. CA0063509; Order No. R4-2016-0309), which was adopted on September 7, 2016, and became effective on November 1, 2016.

#### Horizontal Biosparge System

Kinder Morgan completed installation of a horizontal biosparge system in the south-central area of the site in 2014. The biosparge well is constructed of 4-inch-diameter, Schedule 80 polyvinyl chloride (PVC) casing and screen completed to a vertical depth of approximately 45 feet below ground surface (bgs). The lateral length of the screen is 600 feet; the screen interval is situated below the central portion of the south-central area hydrocarbon plume. Further details regarding the construction of the biosparge well are documented in the *Horizontal Biosparge Well and Soil Vapor Monitoring Probe Completion Report* (CH2M, 2015<sup>1</sup>).

Biosparging involves introducing air into the groundwater in situ to enhance biodegradation of VOCs present in product and groundwater. The biosparge compressor delivers ambient air to the biosparge well at a maximum design rate of approximately 500 standard cubic feet per minute. Vapors generated by the biosparge well are captured by the SVE system. The SVE system has an interlock that prevents the biosparge system from turning on unless the SVE system is operating. Operation of the SVE system reduces the potential for off-gassing of VOCs during biosparge operations.

A second horizontal biosparge well was installed in the southeastern area of the site in November 2017. The design of the second biosparge well is similar to the south-central biosparge well: 4-inch-diameter Schedule 80 PVC casing and screen completed to a depth of approximately 45 feet bgs. The lateral length of the screen is 240 feet centered below the southeastern area hydrocarbon plume. A construction completion report documenting construction activities and specifications was submitted to the Regional

<sup>&</sup>lt;sup>1</sup> CH2M HILL Engineers Inc. (CH2M). 2015. Horizontal Biosparge Well and Soil Vapor Monitoring Probe Completion Report, SFPP Norwalk Pump Station, 15306 Norwalk Boulevard, Norwalk, California. February 18.

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Water Quality Control Board (Water Board) on July 12, 2018 (Jacobs, 2018<sup>2</sup>). A second biosparge compressor will be installed in the fourth quarter 2018 to deliver ambient air to the new biosparge well. The air compressor will be appropriately sized to allow for future system expansion.

A summary of the GWTS operations during the reporting period is presented below. Operations of the SVE and biosparge systems are presented separately in quarterly remediation progress reports that are provided to the Water Board and Restoration Advisory Board (RAB).

# Summary of Quarterly Groundwater Treatment System Operations

A total of 1,021,192 gallons of groundwater was extracted from the south-central and southeastern areas, treated, and discharged to Coyote Creek during the third quarter 2018. Wells that were in operation included MW-SF-3, MW-SF-15, GMW-9, GMW-10, GMW-O-11, GMW-O-20, and GMW-O-23 in the south-central area, and GMW-O-15, GMW-36, and GMW-SF-9 in the southeastern area. No groundwater was extracted from the West Side Barrier area during this period. Table 1 summarizes the average daily flow rate during the reporting period. The GWTS operated throughout the quarter, with the following exceptions:

• The GWTS shut down on August 20, 2018, due to the level switches at the DAF containment pad and the 300-gallon equalization tank. The GWTS was off the majority of the time from August 20 to 29, 2018. The GWTS was turned on periodically during that time to troubleshoot the system. Redundant high-level switches were added in the event that the primary level switches do not operate. The system was restarted on August 30, 2018.

No free product accumulated in the product holding tank of the GWTS during the third quarter 2018. In addition, hand bailing of free product (from wells not equipped for TFE) was not performed during this reporting period because free product was not detected in the wells.

# **Routine Effluent Monitoring**

During the third quarter 2018, effluent water samples were collected pursuant to the Waste Discharge Requirements (WDRs) under Order No. R4-2016-0309. Samples were collected at the Order-designated monitoring point EFF-001 (Remediation System Effluent) for monthly and quarterly analyses.

All compliance samples were shipped to Asset Laboratories in Las Vegas, Nevada, for analysis. Asset Laboratories sent samples to BC Laboratories, Inc. in Bakersfield, California, for biochemical oxygen demand and ammonia as nitrogen analysis. The samples were analyzed in accordance with current U.S. Environmental Protection Agency (EPA) methods or as specified in the WDRs for the site. The laboratory reports are included in Attachment A. A data quality assurance/quality control evaluation conducted by Jacobs is included in Attachment B.

# **Summary of Compliance Results**

#### Monthly and Quarterly Sampling

Effluent daily flow rates are presented in Table 1. All daily flows were below the permit maximum discharge limit of 150,000 gallons per day. Analytical results for the July, August, and September 2018 effluent sampling events are summarized in Table 2. The effluent samples (EFF-001) were collected after the secondary polishing LGAC vessel, prior to discharge into the storm drain at the site. The results were compared with the maximum daily and average monthly discharge limits under Order No. R4-2016-0309. As shown in Table 2, all discharge limits for the treatment system effluent were met during the reporting period. Laboratory analytical reports and chain-of-custody documents are included in Attachment A. The mass emission (in pounds per day) is calculated by multiplying the daily effluent flow measured during the

<sup>&</sup>lt;sup>2</sup> Jacobs Engineering Group Inc. (Jacobs). 2018. Southeastern Horizontal Biosparge Well (BS-02) Completion Report, SFPP Norwalk Pump Station, 15306 Norwalk Boulevard, Norwalk, California. July 12.

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day of the sampling event (in million gallons per day) by the concentration of the analyte (milligrams per liter) and the conversion factor of 8.34, as required by the discharge permit. If the analyte was not detected in the sample, the concentration used is half of the method detection limit.

Under NPDES Order No. R4-2016-0306, a wet weather condition is present when the maximum daily flow in Coyote Creek is equal to or greater than 156 cubic feet per second (cfs) as measured at the Los Angeles County Department of Public Works flow gauge station F354-R, located at the bottom of the creek just above the Long Beach Water Reclamation Plant. The daily flow rate in Coyote Creek, which is based on data from the Los Angeles County Department of Public Works flow gauge station F354-R, located at the bottom of the presented in Table 3. Based on these data, the July, August, and September 2018 sampling events, with maximum daily flows less than 27 cfs, all occurred during dry weather conditions. Therefore, the analytical results for July, August, and September 2018 are compared to dry weather discharge limits.

# Waste Handling

On July 26, 2018, approximately 800 gallons of hazardous wastewater from well redevelopment were removed from the site by Patriot Environmental Services of 508 East E. Street, Unit A, Wilmington, California 90744. The waste was transported under manifest to DK DBA World Oil Recycling at 2000 N. Alameda Street, Compton, California 90222.

On August 28, 2018, approximately 2,800 gallons of hazardous waste liquids from the DAF pad cleaning were removed from the site by Patriot Environmental Services of 508 East E. Street, Unit A, Wilmington, California 90744. The waste was transported to DK DBA World Oil Recycling at 2000 N. Alameda Street, Compton, California 90222.

On September 20, 2018, approximately 80 pounds of nonhazardous gloves, rags, and debris; approximately 300 pounds of nonhazardous soil from soil investigation; and 80 pounds of nonhazardous bag filters were removed from the site by Clean Harbors Environmental Service Inc. of 1737 East Denni Street, Wilmington, California 90744. The waste was transported to Clean Harbors Wilmington LLC. at 1737 East Denni Street, Wilmington, California 90744.

On September 20, 2018, approximately 40 pounds of nonhazardous decontamination water were removed from the site by Clean Harbors Environmental Service Inc. of 1737 East Denni Street, Wilmington, California 90744. The waste was transported to Clean Harbors San Jose LLC. at 1021 Berryessa Road, San Jose, California 95133.

On September 20, 2018, approximately 80 pounds of non-Resource Conservation and Recovery Act (RCRA) hazardous waste spent bag filters were removed from the site by Clean Harbors Environmental Service Inc. of 1737 East Denni Street, Wilmington, California 90744. The waste was transported to Clean Harbors Wilmington LLC. at 1737 E Denni Street, Wilmington, California 90744.

Copies of the waste manifests are included in Attachment C.

Should you require any further information, please contact Vladimir Carino at (949) 224-7548.

Regards,

Jacobs Engineering Group Inc.

Vladimir Carino Project Engineer

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Attachments:

- Table 1 Effluent Flow Rate Measurements, Third Quarter 2018
- Table 2 NPDES Effluent Monitoring, Third Quarter 2018
- Table 3 Maximum Daily Flow in Coyote Creek, Third Quarter 2018
- Figure 1 Site Location Map
- Figure 2 Remediation System Layout
- Attachment A Laboratory Analytical Reports, Chain-of-Custody Documents, and Field Measurements Attachment B Data Quality Assurance/Quality Control

Attachment C – Waste Manifests

**Tables** 

# Table 1. Effluent Flow Rate Measurements, Third Quarter 2018

SFPP Norwalk Pump Station, Norwalk, California

	Average Flow Rate (gpd)						
Date	(Maximum Daily Discharge Limit = 150,000 gpd <sup>a</sup> )						
07/01/18	692						
07/02/18	756						
07/03/18	4,856						
07/04/18	7,164						
07/05/18	7,284						
07/06/18	7,012						
07/07/18	6,442						
07/08/18	6,080						
07/09/18	5,738						
07/10/18	6,102						
07/11/18	8,438						
07/12/18	7,328						
07/13/18	9,518						
07/14/18	8,510						
07/15/18	8,504						
07/16/18	8,572						
07/17/18	9,988						
07/18/18	12,264						
07/19/18	8,598						
07/20/18	7,934						
07/21/18	7,780						
07/22/18	974						
07/23/18	3,598						
07/24/18	6,884						
07/25/18	3,732						
07/26/18	6,574						
07/27/18	12,406						
07/28/18	18,156						
07/29/18	18,276						
07/30/18	18,094						
07/31/18	16,024						
08/01/18	17,466						
08/02/18	16,868						
08/03/18	15,586						
08/04/18	12,730						
08/05/18	14,368						
08/06/18	15,716						
08/07/18	15,068						
08/08/18	16,826						
08/09/18	17,034						
08/10/18	16,586						
08/11/18	16,568						
08/12/18	16,496						
08/13/18	16,442						
08/14/18	16,332						
08/15/18	16,292						
08/16/18	15,160						
08/17/18	16,662						
08/18/18	15,266						
08/19/18	2,804						
08/20/18	0						
08/21/18	4,820						
08/22/18	0						
08/23/18	326						
08/24/18	0						
08/25/18	0						
08/26/18	0						

### Table 1. Effluent Flow Rate Measurements, Third Quarter 2018

SFPP Norwalk Pump Station, Norwalk, California

	Average Flow Rate (gpd)						
Date	(Maximum Daily Discharge Limit = 150,000 gpd <sup>a</sup> )						
08/27/18	0						
08/28/18	342						
08/29/18	0						
08/30/18	5,252						
08/31/18	18,900						
09/01/18	17,558						
09/02/18	16,302						
09/03/18	16,300						
09/04/18	13,892						
09/05/18	18,208						
09/06/18	14,756						
09/07/18	17,440						
09/08/18	12,184						
09/09/18	14,038						
09/10/18	15,930						
09/11/18	16,968						
09/12/18	18,020						
09/13/18	15,994						
09/14/18	15,726						
09/15/18	15,216						
09/16/18	14,920						
09/17/18	14,894						
09/18/18	14,216						
09/19/18	14,270						
09/20/18	14,538						
09/21/18	14,176						
09/22/18	13,698						
09/23/18	13,472						
09/24/18	13,192						
09/25/18	16,820						
09/26/18	13,464						
09/27/18	13,100						
09/28/18	12,680						
09/29/18	12,598						
09/30/18	12,434						

<sup>a</sup> California Regional Water Quality Control Board Waste Discharge Requirements (WDRs). gpd = gallons per day

#### Table 2. NPDES Effluent Monitoring, Third Quarter 2018

SFPP Norwalk Pump Station, Norwalk, California

											Dischar	ge Limits <sup>b</sup>
	Sampling	Analytical									Monthly	Daily
Analyte	Frequency	Method	Units	MDL	RL <sup>c</sup>	ML <sup>a</sup>	7/12/2018	8/3/2018	8/16/2018	9/7/2018	Average	Maximum
Flow	Daily		gpd				7,328	15,586	15,160	17,440		150,000
TPH as gas (C4-C12)	Monthly	EPA 8015B	μg/L	16	50	NE	<42	<27		<35		
TPH as Diesel (C13-C22)	Monthly	EPA 8015B	μg/L	16	26	NE	17 J	<16		<18		
TPH as Oil (C23+)	Monthly	EPA 8015B	μg/L	14	26	NE	<30	33		<17		
Total TPH	Monthly	EPA 8015B	μg/L	16	100	NE	17 J	33 J		<70		100
Total TPH	Monthly	Calculated	lbs/day				0.001039	0.00429		0.005091		0.13
Benzene	Monthly	EPA 8260B	μg/L	0.34	1	2.0	<0.34	<0.34		<0.34		
1,1-Dichloroethane	Monthly	EPA 8260B	μg/L	0.45	0.5	1.0	<0.45	<0.45		<0.45		
1,2-Dichloroethane	Monthly	EPA 8260B	μg/L	0.29	0.5	2.0	<0.29	<0.29		<0.29		
Ethylbenzene	Monthly	EPA 8260B	μg/L	0.31	1.0	2.0	< 0.31	< 0.31		< 0.31		
Phenol	Monthly	EPA 8270C	μg/L	0.34	1.0	1	< 0.33		< 0.34	< 0.33		
Toluene	Monthly	EPA 8260B	μg/L	0.46	2.0	2.0	<0.46	<0.46		<0.46		
Methyl tertiary-butyl ether	Monthly	EPA 8260B	μg/L	0.34	1.0	NE	< 0.34	< 0.34		< 0.34		
Tertiary butyl alcohol	Monthly	EPA 8260B	μg/L	2.4	5.0	NE	<2.4	<2.4		<2.4		
Total Xylenes	Monthly	EPA 8260B	μg/L	1.5	2.0	NE	<1.5	<1.5		<1.5		
Copper (total recoverable) (dry weather)	Monthly	EPA 200.8	μg/L	0.26	0.5	0.5	<0.26 J	<0.26		<0.26 J	9.7	32
Copper (total recoverable) (dry weather)	Monthly	Calculated	lbs/day				0.000008	0.000017		0.000019	0.012	0.04
Copper (total recoverable) (wet weather)	Monthly	EPA 200.8	μg/L	0.26	0.5	0.5	<0.26 J	<0.26		<0.26 J	8.3	27
Copper (total recoverable) (wet weather)	Monthly	Calculated	lbs/day				0.000008	0.000017		0.000019	0.010	0.034
Lead (total recoverable) (wet weather)	Monthly	EPA 200.8	μg/L	0.13	0.5	0.5	<0.13	<0.13		<0.13	33	106
Lead (total recoverable) (wet weather)	Monthly	Calculated	lbs/day				0.000004	0.000008		0.000009	0.041	0.13
Mercury (total recoverable)	Monthly	EPA 245.1	μg/L	0.018	0.1	0.2	<0.018	< 0.018		0.024 J	0.051	0.10
Mercury (total recoverable)	Monthly	Calculated	lbs/day				0.000001	0.000001		0.000003	6.4E-05	1.3E-04
Zinc (total recoverable) (dry weather)	Monthly	EPA 200.8	μg/L	0.27	1.0	1.0	<0.27	<0.27		<0.27	64	220
Zinc (total recoverable) (dry weather)	Monthly	Calculated	lbs/day				0.000008	0.000018		0.00002	0.080	0.28
Zinc (total recoverable) (wet weather)	Monthly	EPA 200.8	μg/L	0.27	1.0	1.0	<0.27	<0.27		<0.27	46	158
Zinc (total recoverable) (wet weather)	Monthly	Calculated	lbs/day				0.000008	0.000018		0.00002	0.058	0.2
BOD	Quarterly	SM 5210B	mg/L	1.5	1.5	NE	2.8				20	30
BOD	Quarterly	Calculated	lbs/day				0.171123				25	38
Total Suspended Solids	Quarterly	SM 2540D	mg/L	10	10.00	NE	<10				50	75
Total Suspended Solids	Quarterly	Calculated	lbs/day				0.305578				63	94
Н	Quarterly		s.u.			NE	7.4					6.5/8.5
Oil and Grease	Quarterly	EPA 1664A	mg/L	0.74	4.50	NE	<0.74				10	15
Oil and Grease	Quarterly	Calculated	lbs/day				0.022613				13	19
Ammonia Nitrogen (as N)	Quarterly	SM 4500NH3G	mg/L	0.078	0.20	NE	0.082 J					
Settleable Solids	Quarterly	SM 2540F	mL/L/hr	0.093	0.09	NE	< 0.093				0.1	0.3
Temperature	Quarterly	Temperature	°F			NE	72.5	78				86
Turbidity	Quarterly	SM 2130B	NTU	0.1	0.10	NE	0.15				50	75
Salinity	2x/year	SM 2520B	ppt			NE						
· · ·												Pass and %
Chronic Toxicity	2x/year		PASS/FAIL			NE					Pass	Effect <50
Di-isopropyl Ether	Annually	EPA 8260B	μg/L			NE						
Methyl ethyl ketone	Annually	EPA 8260B	μg/L			NE						
Methylene Blue Active Substances	Annually	SM 5540C	mg/L			NE						
Nitrate + Nitrite as N	Annually	EPA 300.0	mg/L			NE						
Sulfides	Annually	SM 4500 SD	mg/L			NE						
Tert-amyl-methyl Ether	Annually	EPA 8260B	μg/L			NE						
TCDD Equivalents	Annually	EPA 8290	pg/L			NE						
Other Priority Pollutants	Annually		See Table 3									

#### Table 2. NPDES Effluent Monitoring, Third Quarter 2018

SFPP Norwalk Pump Station, Norwalk, California

Notes:

<sup>a</sup> ML is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. It is also the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method-specified sample weights, volumes, and processing steps have been followed.

<sup>b</sup> California Regional Water Quality Control Board Waste Discharge Requirements (WDRs) under Order No. R4-2016-0309.

<sup>c</sup> The highest MDL and RL during this reporting period are shown.

-- = not measured or not analyzed < = not detected above the MDL ° F = degrees Fahrenheit µg/L = micrograms per liter EPA = U.S. Environmental Protection Agency gpd = gallons per day J = detected at a concentration below the RL and above the MDL; reported value is estimated lbs/day = pounds per day MDL = laboratory method detection limit mg/L = milligrams per liter ML = minimum level. See note a. mL/L/hr = milliliters per liter per hour NE = not established NPDES = National Pollutant Discharge Elimination System NTU = nephelometric turbidity unit(s) pg/L = picograms per liter ppt = parts per trillion s.u. = standard unit(s) TPH = total petroleum hydrocarbons

# Table 3. Maximum Daily Flow in Coyote Creek, Third Quarter 2018

SFPP Norwalk Pump Station, Norwalk, California

	Maximum Daily Flow Rate	
Date	(cfs) <sup>a</sup>	Comments
07/01/18	3.6	
07/02/18	12.0	
07/03/18	4.2	
07/04/18	4.5	
07/05/18	6.0	
07/06/18	5.2	
07/07/18	4.5	
07/08/18	3.6	
07/09/18	9.7	
07/10/18	3.9	
07/11/18	26.5	
07/12/18	13.0	July 2018 sampling conducted
07/13/18	16.5	
07/14/18	3.9	
07/15/18	3.6	
07/16/18	4.2	
07/17/18	4.2	
07/18/18	4.8	
07/19/18	7.1	
07/20/18	8.4	
07/21/18	4.8	
07/22/18	6.6	
07/23/18	6.0	
07/24/18	9.7	
07/25/18	9.7	
07/26/18	3.9	
07/27/18	4.5	
07/28/18	7.1	
07/29/18	9.7	
07/30/18	7.7	
07/31/18	17.8	
08/01/18	22.0	
08/02/18	8.4	
08/03/18	7.7	August 2018 sampling conducted
08/04/18	7.1	
08/05/18	9.7	
08/06/18	13.0	
08/07/18	13.0	
08/08/18	13.0	
08/09/18	18.9	
08/10/18	10.1	
08/11/18	18.2	
08/12/18	10.2	
08/13/18	3.6	
08/13/18	5.0	
08/15/18	6.0	
08/15/18	5.5	August 2018 sampling conducted
08/16/18	5.5	August 2010 sampling conducted
08/18/18	4.8	
08/19/18	6.0	
08/20/18	4.8	
08/21/18	4.8	
08/22/18	5.2	
08/23/18	4.8	

### Table 3. Maximum Daily Flow in Coyote Creek, Third Quarter 2018

SFPP Norwalk Pump Station, Norwalk, California

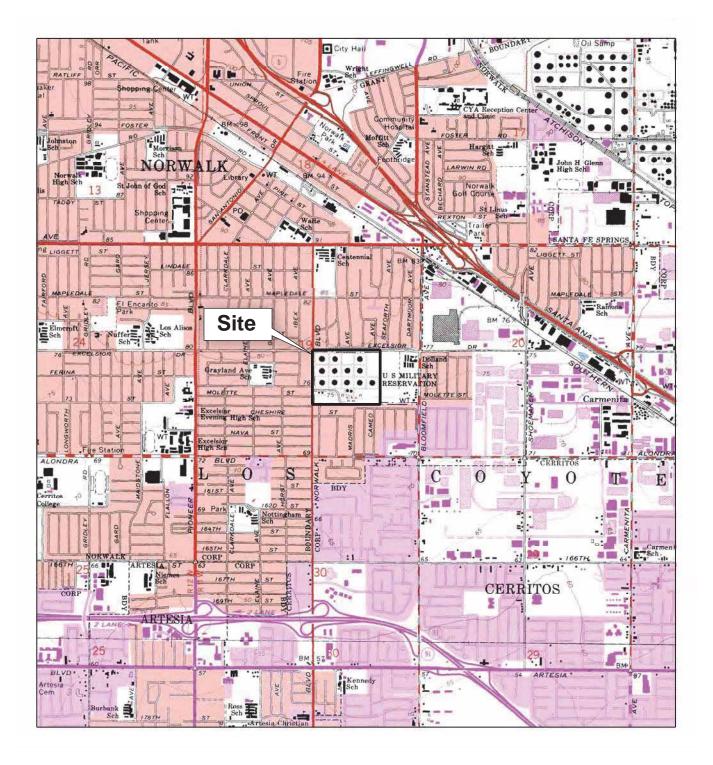
	Maximum Daily Flow Rate	
Date	(cfs) <sup>a</sup>	Comments
08/24/18	4.5	
08/25/18	4.2	
08/26/18	4.8	
08/27/18	7.1	
08/28/18	6.6	
08/29/18	7.1	
08/30/18	6.6	
08/31/18	4.8	
09/01/18	5.5	
09/02/18	4.8	
09/03/18	4.5	
09/04/18	5.5	
09/05/18	5.2	
09/06/18	8.4	
09/07/18	6.0	September 2018 sampling conducted
09/08/18	9.0	
09/09/18	5.2	
09/10/18	5.2	
09/11/18	6.0	
09/12/18	7.1	
09/13/18	9.7	
09/14/18	12.0	
09/15/18	6.6	
09/16/18	7.7	
09/17/18	17.8	
09/18/18	4.5	
09/19/18	7.1	
09/20/18	5.2	
09/21/18	5.2	
09/22/18	4.5	
09/23/18	4.5	
09/24/18	7.1	
09/25/18	5.5	
09/26/18	14.1	
09/27/18	5.2	
09/28/18	6.6	
09/29/18	6.0	
09/30/18	5.2	

Notes:

<sup>a</sup> A wet weather event is any day when the maximum daily flow of Coyote Creek is greater than or equal to 156 cfs. A dry weather event is any day when the maximum daily flow of Coyote Creek is less than 156 cfs.

cfs = cubic feet per second

Figures



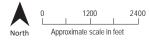
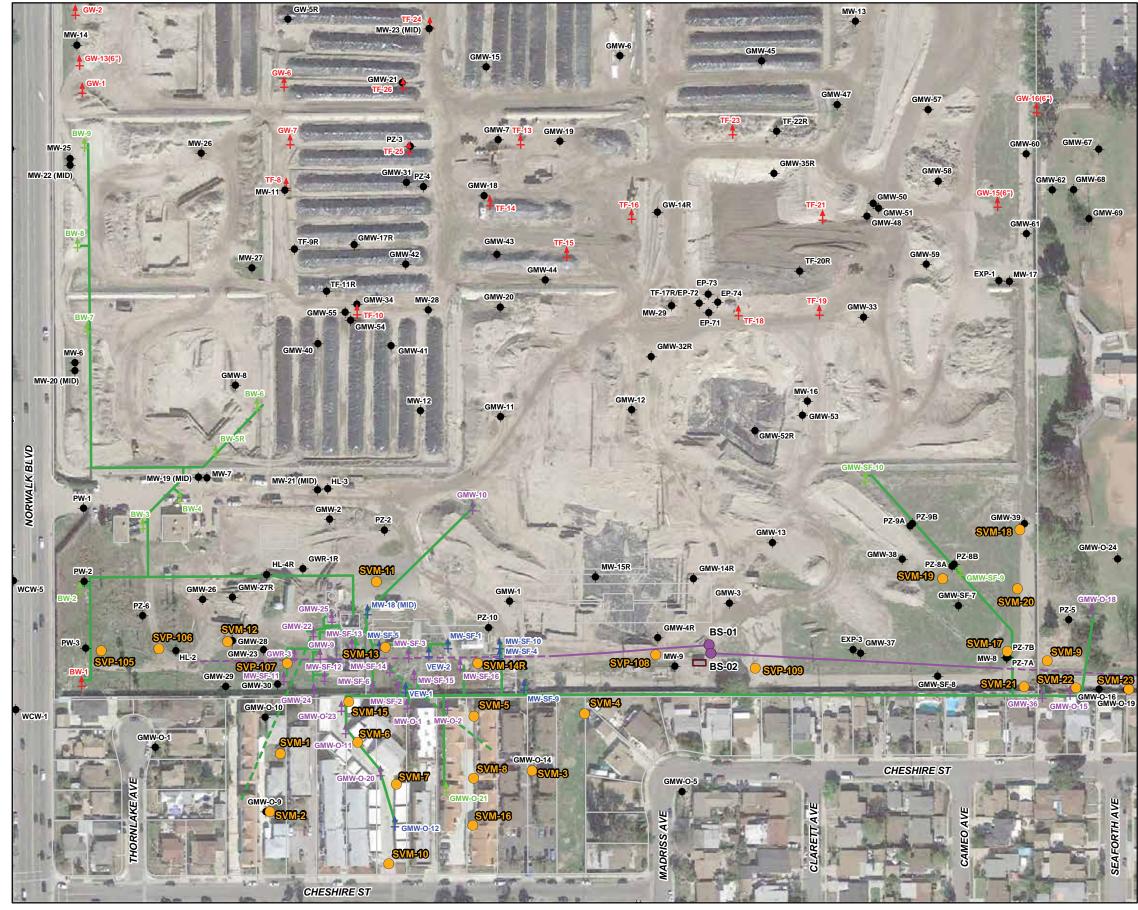


Figure 1. Site Location Map SFPP Norwalk Pump Station Norwalk, California



BASEMAP MODIFIED FROM U.S.G.S. 7.5 MINUTE QUADRANGLE MAP LOS ALAMITOS 1964, CALIFORNIA. PHOTO-REVISED 1981. WHITTIER 1965, CALIFORNIA. PHOTO-REVISED 1981.

EN1014151027SCO Figure1.pdf 10/15



R:\ENBG\00\_PROJ\K\KINDERMORGANINORWALK\MAPFILES\2018\FIGURE\_2\_REMEDIATION\_SYSTEM\_LAYOUT.MXD\_AESPEJO 2/15/2018

#### LEGEND

$\bigcirc$	Soil Vapor Probe/Soil Vapor Monitoring Probe
	Horizontal Biosparge Well Entry Point
÷	Existing Groundwater Monitoring Well
+	Existing Remediation Well
<b>‡</b>	Kinder Morgan Combined Soil Vapor and Total Fluids Extraction Wells
4	Kinder Morgan Soil Vapor Extraction Wells
4	Kinder Morgan Total Fluids and/or Groundwater Extraction Wells
	Kinder Morgan Remediation Piping Layout
	(Above Ground and Below Ground)
	Horizontal Vapor Extraction Well Piping
	Horizontal Biosparge Well (Dashed Line Depicts Approximate Lateral Extent of Well Screen)
	Let a second

Air Compressor System

Imagery Source: Google Earth October 18, 2016.

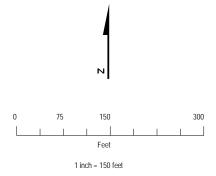


Figure 2. Remediation System Layout SFPP Norwalk Pump Station Norwalk, California



Attachment A Laboratory Analytical Reports, Chain-of-Custody Documents, and Field Measurements July 24, 2018

Eric Davis CH2MHill 1000 Wilshire Blvd. Los Angeles, CA 90017 TEL: FAX:

Workorder No.: N031203

RE: SFPP Norwalk

Attention: Eric Davis

Enclosed are the results for sample(s) received on July 12, 2018 by ASSET Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

mane umm

Quennie Manimtim Laboratory Director

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CLIENT:CH2MHillProject:SFPP NorwalkLab Order:N031203

# CASE NARRATIVE

# tSAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Results were J-Flag. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" Flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Analytical Comment for EPA 200.8:

Matrix Spike (MS) and/or Matrix Spike Duplicate (MSD) are/is outside recovery criteria for Zinc and Copper possibly due to matrix interference. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comment for EPA 8015B\_Total:

Method Blank has hit above the reporting limit.

Analytical Comments for EPA 8260B:

Matrix Spike (MS) is outside recovery criteria for surrogate possibly due to matrix interference. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for EPA 8270C:

Laboratory Control Sample (LCS) recovery biased high for surrogate 4-Terphenyl-d14. Sample results were non-detect (ND) for analyte of interest therefore reanalysis of the samples was not necessary.

CLIENT:	CH2MHill	
Project: Lab Order:	SFPP Norwalk N031203	CASE NARRATIVE

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria biased high for surrogate 4-Terphenyl-d14. Sample results were non-detect (ND) for analyte of interest therefore reanalysis of the samples was not necessary.

CLIENT:CH2MHillProject:SFPP NorwalkLab Order:N031203

# **Contract No:**

# Work Order Sample Summary

Lab Sample ID Client Sample ID	Matrix	<b>Collection Date</b>	Date Received	Date Reported
N031203-001A EFF-07-12	Wastewater	7/12/2018 1:30:00 PM	7/12/2018	7/24/2018
N031203-001B EFF-07-12	Wastewater	7/12/2018 1:30:00 PM	7/12/2018	7/24/2018
N031203-001C EFF-07-12	Wastewater	7/12/2018 1:30:00 PM	7/12/2018	7/24/2018
N031203-001D EFF-07-12	Wastewater	7/12/2018 1:30:00 PM	7/12/2018	7/24/2018
N031203-001E EFF-07-12	Wastewater	7/12/2018 1:30:00 PM	7/12/2018	7/24/2018
N031203-001F EFF-07-12	Wastewater	7/12/2018 1:30:00 PM	7/12/2018	7/24/2018
N031203-001G EFF-07-12	Wastewater	7/12/2018 1:30:00 PM	7/12/2018	7/24/2018
N031203-001H EFF-07-12	Wastewater	7/12/2018 1:30:00 PM	7/12/2018	7/24/2018
N031203-001I EFF-07-12	Wastewater	7/12/2018 1:30:00 PM	7/12/2018	7/24/2018



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		Timt Date: 24-Jul-10						<i>ui</i> -10		
CLIENT:	CH2MHill	Client Sample ID: EFF-07-12								
Lab Order:	N031203		Collection Date: 7/12/2018 1:30:00 PM							
Project:	SFPP Norwalk					Μ	atrix: W	ASTEWATE	R	
Lab ID:	N031203-001									
Analyses		Resi	ılt	MDL	PQL	Qual	Units	DF	Date Analyzed	
TOTAL NON-	FILTERABLE RESID	DUE								
					SN	12540D				
RunID: NV00	922-WC_180713A	QC Batch:	68	837		PrepE	Date:	7/13/2018	Analyst: LR	
Suspended S Filterable)	olids (Residue, Non-	٢	١D	10	10		mg/L	1	7/13/2018 09:40 AM	
SETTLEABLE	EMATTER									
					SN	/12540F				
RunID: NV00	922-WC_180713C	QC Batch:	68	838		PrepE	Date:	7/13/2018	Analyst: QBM	
Settleable Ma	atter	١	١D	0.093	0.093		ml/L	1	7/13/2018	
HEXANE EXT	RACTABLE MATER	RIAL (HEM)								
					EPA 1664	LHEM RE	VВ			
RunID: NV00	922-WC_180719A	QC Batch:	69	913		PrepE	Date:	7/19/2018	Analyst: LR	
Oil & Grease		١	١D	0.74	4.5		mg/L	1	7/19/2018 07:57 AM	
TURBIDITY										
					SM	l 2130B				
RunID: NV00	922-WC_180713B	QC Batch:	R1	26206		Prep	Date:		Analyst: LR	

# **ANALYTICAL RESULTS**

Print Date: 24-Jul-18

#### EPA 3510C **EPA 8270C** RunID: NV00922-MS3\_180723A QC Batch: 69916 Phenol ND 0.33 1.0 Surr: 1,2-Dichlorobenzene-d4 90.0 0 16-120

0.15

44.0

121

34.0

0.10

0

0

0

0.10

25-120

46-132

15-120

EPA 8260B

# **VOLATILE ORGANIC COMPOUNDS BY GC/MS**

Surr: 2-Fluorobiphenyl

Surr: 4-Terphenyl-d14

Surr: Phenol-d5

SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS

#### CA01638-MS10\_180713A QC Batch: CA18VW009 PrepDate: RunID: Analyst: GAC ND 0.50 1,1-Dichloroethane 0.45 7/13/2018 02:38 PM ug/L 1 1,2-Dichloroethane ND 0.29 0.50 ug/L 1 7/13/2018 02:38 PM ND 1.0 Benzene 0.34 ug/L 1 7/13/2018 02:38 PM Ethylbenzene ND 1.0 0.31 ug/L 1 7/13/2018 02:38 PM m,p-Xylene ND 0.23 1.0 ug/L 1 7/13/2018 02:38 PM MTBE ND 0.34 1.0 ug/L 1 7/13/2018 02:38 PM 1.0 7/13/2018 02:38 PM o-Xylene ND 0.31 ug/L 1

**Qualifiers:** В Analyte detected in the associated Method Blank

Turbidity

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Results are wet unless otherwise specified

Е Value above quantitation range

NTU

µg/L

%REC

%REC

%REC

%REC

PrepDate:

J Analyte detected below quantitation limits

S Spike/Surrogate outside of limits due to matrix interference

Surrogate Diluted Out DO



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7/13/2018 09:55 AM

Analyst: JJS

7/23/2018 12:52 PM

1

1

1

1

1

1

7/19/2018

"Serving Clients with Passion and Professionalism"

# **ANALYTICAL RESULTS**

Print Date: 24-Jul-18

CLIENT:	CH2MHill			C	ient Samp	ole ID: E	FF-07-12		
Lab Order:	N031203				-			00 PM	
Project:	SFPP Norwalk								
v					IVI		ASIEWAIE	ĸ	
Lab ID:	N031203-001								
Analyses		Result	MDL	PQL	Qual	Units	DF	Date Analyzed	
VOLATILE OR	GANIC COMPOUN	DS BY GC/MS			_				
				EPA	8260B				
RunID: CA016	638-MS10_180713A	QC Batch: CA	18VW009		PrepE	Date:		Analyst: GAC	
Tert-Butanol		ND	2.4	5.0		ug/L	1	7/13/2018 02:38 PM	
Toluene		ND	0.46	2.0		ug/L	1	7/13/2018 02:38 PM	
Xylenes, Total		ND	1.5	2.0		ug/L	1	7/13/2018 02:38 PM	
Surr: 1,2-Di	ichloroethane-d4	87.4	0	72-119		%REC	1	7/13/2018 02:38 PM	
Surr: 4-Bro	mofluorobenzene	89.3	0	76-119		%REC	1	7/13/2018 02:38 PM	
Surr: Dibror	mofluoromethane	89.8	0	85-115		%REC	1	7/13/2018 02:38 PM	
Surr: Tolue	ne-d8	81.2	0	81-120		%REC	1	7/13/2018 02:38 PM	
TPH EXTRAC	TABLE BY GC/FID								
	E	EPA 3510C		EPA	8015B				
RunID: NV009	922-GC1_180712C	QC Batch: 688	333		PrepE	Date:	7/13/2018	Analyst: JJS	
TPH-Diesel (C	C13-C22)	17	16	26	J	ug/L	1	7/13/2018 02:33 PM	
TPH-Oil (C23-	·C36)	30	14	26		ug/L	1	7/13/2018 02:33 PM	
Surr: Octac	osane	79.5	0	26-152		%REC	1	7/13/2018 02:33 PM	
Surr: p-Ter	ohenyl	91.4	0	57-132		%REC	1	7/13/2018 02:33 PM	
GASOLINE R	ANGE ORGANICS E	BY GC/FID							
				EPA	8015B				
RunID: NV009	922-GC4_180713A	QC Batch: E1	BVW054		PrepD	Date:		Analyst: QBM	
TPH-Gasoline	(C4-C12)	42	16	50	J	ug/L	1	7/13/2018 11:24 AM	
Surr: Chloro	obenzene - d5	107	0	74-138		%REC	1	7/13/2018 11:24 AN	
MERCURY BY	COLD VAPOR TEC	HNIQUE							
				EP/	A 245.1				
RunID: NV009	922-AA1_180713A	QC Batch: 688	330		Prep	Date:	7/13/2018	Analyst: MG	
Mercury		ND	0.018	0.050		µg/L	1	7/13/2018 12:25 PM	
TOTAL META	LS BY ICPMS								
				EP/	A 200.8				
RunID: NV009	922-ICP7_180716A	QC Batch: 688	343		PrepE	Date:	7/13/2018	Analyst: CEI	
Copper		ND	0.26	0.50		µg/L	1	7/16/2018 03:45 PM	
Lead		ND	0.13	0.50		µg/L	1	7/16/2018 03:45 PM	
Zinc		ND	0.27	1.0		µg/L	1	7/16/2018 03:45 PM	

Qualifiers:	В	Analyte detected in the associated Method Blank	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

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Results are wet unless otherwise specified

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# **ANALYTICAL RESULTS**

Print Date: 24-Jul-18

CLIENT:	CH2MHill	Client Sample ID: EFF-07-12						
Lab Order:	N031203	Collection Date: 7/12/2018 1:30:00 PM						
Project:	SFPP Norwalk				Μ	atrix: WAS	TEWATE	R
Lab ID:	N031203-001							
Analyses		Result I	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL TPH								
				EP/	A 8015B			
RunID: NVC	0922-GC1_180712C	QC Batch: R126	214		Prep	Date:		Analyst: <b>JJS</b>
Total TPH		89	16	50	В	ug/L	1	7/12/2018

Qualifiers:

Analyte detected in the associated Method Blank

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit Results are wet unless otherwise specified

- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

DO Surlogate Difuted C



В

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**CLIENT:** CH2MHill

Work Order: N031203

**Project:** SFPP Norwalk

# ANALYTICAL QC SUMMARY REPORT

#### TestCode: 160.2\_2540D\_W

Sample ID: LCS-68837 Client ID: LCSW	SampType: L Batch ID: <b>6</b>			ie: 160.2_2540 Io: SM2540D	<b>D</b> _ Units: <b>mg/L</b>		Prep Da Analysis Da	ite: 7/13/20 ite: 7/13/20		RunNo: <b>12</b> SeqNo: <b>30</b>		
Analyte	l	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Suspended Solids (Residue, I	Non-Filter 93	39.000	10	1000	0	93.9	80	120				
Sample ID: MB-68837 Client ID: PBW	SampType: <b>N</b> Batch ID: <b>6</b>			ie: 160.2_2540 io: SM2540D	D_ Units: mg/L		Prep Da Analysis Da	ite: 7/13/20 ite: 7/13/20		RunNo: <b>12</b> SeqNo: <b>30</b>		
Analyte Suspended Solids (Residue, I		Result ND	PQL 10	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sample ID: N031181-001ADU Client ID: ZZZZZZ				le: 160.2_2540 lo: SM2540D	D_ Units: mg/L		Prep Da Analysis Da	ite: 7/13/20 ite: 7/13/20		RunNo: <b>12</b> SeqNo: <b>30</b>		
Analyte	I	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Suspended Solids (Residue, I	Non-Filter 2	26.000	10						25.00	3.92	5	

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits

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- S Spike/Surrogate outside of limits due to matrix interference
- E Value above quantitation range ND Not Detected at the Reporting Limit

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

- CALIFORNIA P:562.219.7435 F:562.219.7436 11110 Artesia Blvd., Ste B, Cerritos, CA 90703 ELAP Cert 2921 EPA ID CA01638
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# CLIENT:CH2MHillWork Order:N031203Project:SFPP Norwalk

# ANALYTICAL QC SUMMARY REPORT

TestCode: 160.5\_2540F\_W

Sample ID: MB-68838	SampType: MBLK	TestCode: 160.5_2540F_ Units: ml/L	Prep Date: 7/13/2018	RunNo: 126345
Client ID: PBW	Batch ID: 68838	TestNo: SM2540F	Analysis Date: 7/13/2018	SeqNo: 3084297
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Settleable Matter	ND	0.10		

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits
- S Spike/Surrogate outside of limits due to matrix interference
  - CALIFORNIA |P:562.219.7435 F:562.219.7436 11110 Artesia Blvd., Ste B, Cerritos, CA 90703 ELAP Cert 2921 EPA ID CA01638

E Value above quantitation range

ND Not Detected at the Reporting Limit

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

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#### CLIENT: CH2MHill

Work Order:N031203Project:SFPP Norwalk

# ANALYTICAL QC SUMMARY REPORT

#### TestCode: 1664\_HEM\_W

Sample ID: MB-69913	SampType: <b>MBLK</b>	TestCode: 1664_HEM_W Units: mg/L	Prep Date: 7/19/2018	RunNo: 126347
Client ID: PBW	Batch ID: 69913	TestNo: EPA 1664 _H	Analysis Date: 7/19/2018	SeqNo: 3084305
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Oil & Grease	ND	4.0		
Sample ID: LCS-69913	SampType: LCS	TestCode: 1664_HEM_W Units: mg/L	Prep Date: 7/19/2018	RunNo: 126347
Client ID: LCSW	Batch ID: 69913	TestNo: EPA 1664 _H	Analysis Date: 7/19/2018	SeqNo: 3084306
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Oil & Grease	33.500	4.0 40.00 0	83.8 78 114	
Sample ID: N031203-001GMS	SampType: <b>MS</b>	TestCode: 1664 HEM W Units: mg/L	Prep Date: 7/19/2018	RunNo: <b>126347</b>
1 .				
Client ID: ZZZZZZ	Batch ID: 69913	TestNo: EPA 1664 _H	Analysis Date: 7/19/2018	SeqNo: 3084308
		0	·	SeqNo: <b>3084308</b> %RPD RPDLimit Qual
Client ID: ZZZZZZ	Batch ID: 69913	TestNo: EPA 1664 _H	Analysis Date: 7/19/2018	
Client ID: ZZZZZZ	Batch ID: 69913 Result	TestNo: EPA 1664 _H PQL SPK value SPK Ref Val	Analysis Date: <b>7/19/2018</b> %REC LowLimit HighLimit RPD Ref Val	
Client ID: ZZZZZZ Analyte Oil & Grease	Batch ID: <b>69913</b> Result 40.353	TestNo:   EPA 1664 _H     PQL   SPK value     4.7   47.06	Analysis Date: 7/19/2018 %REC LowLimit HighLimit RPD Ref Val 85.8 78 114	%RPD RPDLimit Qual
Client ID: ZZZZZZ Analyte Oil & Grease Sample ID: N031203-001GMSD	Batch ID: 69913 Result 40.353 SampType: MSD	TestNo: EPA 1664 _H PQL SPK value SPK Ref Val 4.7 47.06 0 TestCode: 1664_HEM_W Units: mg/L	Analysis Date:       7/19/2018         %REC       LowLimit       HighLimit       RPD Ref Val         85.8       78       114         Prep Date: 7/19/2018	%RPD RPDLimit Qual RunNo: <b>126347</b>

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits
- S Spike/Surrogate outside of limits due to matrix interference
- E Value above quantitation range
- ND Not Detected at the Reporting Limit

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

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#### **CLIENT:** CH2MHill

Work Order: N031203 **Project:** SFPP Norwalk

# ANALYTICAL QC SUMMARY REPORT

TestCode: 200.8\_W\_SFPP

Sample ID: MB-68843	SampType: MBLK	TestCode: 200.8_W_SFP Units: µg/L	Prep Date: 7/13/2018	RunNo: 126255
Client ID: PBW	Batch ID: 68843	TestNo: EPA 200.8	Analysis Date: 7/16/2018	SeqNo: 3080137
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Copper	0.454	0.50		J
Lead	ND	0.50		
Zinc	ND	1.0		
Sample ID: LCS-68843	SampType: LCS	TestCode: 200.8_W_SFP Units: µg/L	Prep Date: 7/13/2018	RunNo: <b>126255</b>
Client ID: LCSW	Batch ID: 68843	TestNo: EPA 200.8	Analysis Date: 7/16/2018	SeqNo: 3080138
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Copper	10.729	0.50 10.00 0	107 85 115	
Lead	10.328	0.50 10.00 0	103 85 115	
Zinc	87.935	1.0 100.0 0	87.9 85 115	
Sample ID: N031203-001C-D	UP SampType: DUP	TestCode: 200.8_W_SFP Units: µg/L	Prep Date: 7/13/2018	RunNo: <b>126255</b>
Sample ID: N031203-001C-D Client ID: ZZZZZZ	UP SampType: DUP Batch ID: 68843			RunNo: <b>126255</b> SeqNo: <b>3080142</b>
		TestCode: 200.8_W_SFP Units: µg/L	Prep Date: 7/13/2018	
Client ID: ZZZZZZ	Batch ID: 68843	TestCode: 200.8_W_SFP Units: µg/L TestNo: EPA 200.8	Prep Date: 7/13/2018 Analysis Date: 7/16/2018	SeqNo: 3080142
Client ID: ZZZZZZ	Batch ID: 68843 Result	TestCode: 200.8_W_SFP Units: µg/L TestNo: EPA 200.8 PQL SPK value SPK Ref Val	Prep Date: <b>7/13/2018</b> Analysis Date: <b>7/16/2018</b> %REC LowLimit HighLimit RPD Ref Val	SeqNo: <b>3080142</b> %RPD RPDLimit Qual
Client ID: ZZZZZZ Analyte Copper	Batch ID: 68843 Result	TestCode: 200.8_W_SFP Units: µg/L TestNo: EPA 200.8 PQL SPK value SPK Ref Val 0.50	Prep Date: <b>7/13/2018</b> Analysis Date: <b>7/16/2018</b> %REC LowLimit HighLimit RPD Ref Val 0	SeqNo: <b>3080142</b> %RPD RPDLimit Qual 0 20
Client ID: ZZZZZZ Analyte Copper Lead	Batch ID: 68843 Result ND ND ND	TestCode: 200.8_W_SFP Units: µg/L TestNo: EPA 200.8 PQL SPK value SPK Ref Val 0.50 0.50	Prep Date: <b>7/13/2018</b> Analysis Date: <b>7/16/2018</b> %REC LowLimit HighLimit RPD Ref Val 0 0	SeqNo::         3080142           %RPD         RPDLimit         Qual           0         20           0         20           0         20
Client ID: ZZZZZZ Analyte Copper Lead Zinc	Batch ID: 68843 Result ND ND ND	TestCode: 200.8_W_SFP Units: µg/L TestNo: EPA 200.8 PQL SPK value SPK Ref Val 0.50 0.50 1.0	Prep Date: <b>7/13/2018</b> Analysis Date: <b>7/16/2018</b> %REC LowLimit HighLimit RPD Ref Val 0 0 0 0	SeqNo:         3080142           %RPD         RPDLimit         Qual           0         20         20           0         20         20           0         20         20
Client ID: ZZZZZZ Analyte Copper Lead Zinc Sample ID: N031203-001C-M	Batch ID: 68843 Result ND ND ND	TestCode: 200.8_W_SFP Units: μg/L TestNo: EPA 200.8 PQL SPK value SPK Ref Val 0.50 0.50 1.0 TestCode: 200.8_W_SFP Units: μg/L	Prep Date: 7/13/2018 Analysis Date: 7/16/2018 %REC LowLimit HighLimit RPD Ref Val 0 0 0 Prep Date: 7/13/2018	SeqNo::         3080142           %RPD         RPDLimit         Qual           0         20         20           0         20         20           0         20         20           0         20         20
Client ID: ZZZZZZ Analyte Copper Lead Zinc Sample ID: N031203-001C-M Client ID: ZZZZZ	Batch ID: 68843 Result ND ND ND IS SampType: MS Batch ID: 68843	TestCode: 200.8_W_SFP Units: µg/L         TestNo: EPA 200.8         PQL       SPK value         0.50         0.50         1.0    TestCode: 200.8_W_SFP Units: µg/L TestNo: EPA 200.8	Prep Date: 7/13/2018 Analysis Date: 7/16/2018 %REC LowLimit HighLimit RPD Ref Val 0 0 0 Prep Date: 7/13/2018 Analysis Date: 7/16/2018	SeqNo::       3080142         %RPD       RPDLimit       Qual         0       20       20         0       20       20         0       20       20         0       20       20         0       20       20         RunNo:       126255       5         SeqNo:       3080144       5
Client ID: ZZZZZZ Analyte Copper Lead Zinc Sample ID: N031203-001C-M Client ID: ZZZZZZ Analyte	Batch ID: 68843 Result ND ND ND IS SampType: MS Batch ID: 68843 Result	TestCode: 200.8_W_SFP Units: µg/L TestNo: EPA 200.8 PQL SPK value SPK Ref Val 0.50 0.50 1.0 TestCode: 200.8_W_SFP Units: µg/L TestNo: EPA 200.8 PQL SPK value SPK Ref Val	Prep Date: 7/13/2018 Analysis Date: 7/16/2018 %REC LowLimit HighLimit RPD Ref Val 0 0 0 0 Prep Date: 7/13/2018 Analysis Date: 7/16/2018 %REC LowLimit HighLimit RPD Ref Val	SeqNo::       3080142         %RPD       RPDLimit       Qual         0       20       20         0       20       20         0       20       20         0       20       20         0       20       20         RunNo:       126255       5         SeqNo:       3080144       5
Client ID: ZZZZZZ Analyte Copper Lead Zinc Sample ID: N031203-001C-M Client ID: ZZZZZZ Analyte Copper	Batch ID: 68843 Result ND ND ND IS SampType: MS Batch ID: 68843 Result 7.644	TestCode: 200.8_W_SFP Units: µg/L         TestNo: EPA 200.8         PQL       SPK value         0.50         0.50         1.0         TestCode: 200.8_W_SFP Units: µg/L         TestNo: EPA 200.8         PQL       SPK value         SPK value       SFF Units: µg/L         TestNo: EPA 200.8         PQL       SPK value         SPK value       SPK Ref Val         0.50       10.00       0	Prep Date: 7/13/2018 Analysis Date: 7/16/2018 %REC LowLimit HighLimit RPD Ref Val 0 0 0 0 0 0 0 0 0 0 0 0 0	SeqNo::       3080142         %RPD       RPDLimit       Qual         0       20       20         0       200       20         0       200       20         0       200       20         0       200       20         SeqNo::       126255       126         SeqNo::       30801445       146

#### Qualifiers:

- В Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits
- Е Value above quantitation range
- ND Not Detected at the Reporting Limit

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- S Spike/Surrogate outside of limits due to matrix interference
- Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

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# CLIENT: CH2MHill

Work Order:N031203Project:SFPP Norwalk

# ANALYTICAL QC SUMMARY REPORT

TestCode: 200.8\_W\_SFPP

Sample ID: N	N031203-001C-MSD	SampType: <b>MSD</b>	TestCode: 200.8_W_SFP Units: µg/L				Prep Date: 7/13/2018				RunNo: 126255		
Client ID: Z	ZZZZZZ	Batch ID: 68843	TestN	No: EPA 200.8		Analysis Date: 7/16/2018				SeqNo: 3080145			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Copper		7.375	0.50	10.00	0	73.8	75	125	7.644	3.58	20	S	
Lead		10.109	0.50	10.00	0	101	75	125	10.16	0.549	20		
Zinc		125.214	1.0	100.0	0	125	75	125	127.4	1.74	20	S	

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits
- S Spike/Surrogate outside of limits due to matrix interference
- E Value above quantitation range
- ND Not Detected at the Reporting Limit

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
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#### **CLIENT:** CH2MHill

Work Order: N031203 **Project:** SFPP Norwalk

# ANALYTICAL QC SUMMARY REPORT

TestCode: 2130\_W

Sample ID: MB-R126206	SampType: <b>MBLK</b>	TestCode: 2130_W Units: NTU		RunNo: <b>126206</b>
Client ID: PBW	Batch ID: R126206	TestNo: SM 2130B	Analysis Date: 7/13/2018	SeqNo: <b>3078296</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Turbidity	ND	0.10		
Sample ID: N031203-001FDUP	SampType: <b>DUP</b>	TestCode: 2130_W Units: NTU	Prep Date:	RunNo: <b>126206</b>
Sample ID: N031203-001FDUP Client ID: ZZZZZZ	SampType: DUP Batch ID: R126206	TestCode: 2130_W Units: NTU TestNo: SM 2130B	Prep Date: Analysis Date: <b>7/13/2018</b>	RunNo: <b>126206</b> SeqNo: <b>3078298</b>
		<u>-</u>	·	

Qualifiers:

- В Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits
- S Spike/Surrogate outside of limits due to matrix interference
- ND Not Detected at the Reporting Limit

Value above quantitation range

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- Calculations are based on raw values
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- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

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#### CLIENT: CH2MHill

Work Order:N031203Project:SFPP Norwalk

# ANALYTICAL QC SUMMARY REPORT

TestCode: 245.1\_W\_LL

Sample ID: MB-68830	SampType: MBLK	TestCode: 245.1_W_LL Units: µg/L	Prep Date: 7/13/2018	RunNo: 126203
Client ID: PBW	Batch ID: 68830	TestNo: EPA 245.1	Analysis Date: 7/13/2018	SeqNo: 3078268
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Mercury	ND	0.050		
Sample ID: LCS-68830	SampType: LCS	TestCode: 245.1_W_LL Units: µg/L	Prep Date: 7/13/2018	RunNo: 126203
Client ID: LCSW	Batch ID: 68830	TestNo: EPA 245.1	Analysis Date: 7/13/2018	SeqNo: 3078269
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Mercury	2.461	0.050 2.500 0	98.4 85 115	
Sample ID: N031203-001C-MS	SampType: <b>MS</b>	TestCode: 245.1_W_LL Units: µg/L	Prep Date: 7/13/2018	RunNo: <b>126203</b>
Client ID: ZZZZZZ	Batch ID: 68830	TestNo: EPA 245.1	Analysis Date: 7/13/2018	SeqNo: 3078270
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Mercury	2.422	0.050 2.500 0	96.9 75 125	
Sample ID: N031203-001C-MSD	SampType: MSD	TestCode: 245.1_W_LL Units: µg/L	Prep Date: 7/13/2018	RunNo: <b>126203</b>
Client ID: ZZZZZZ	Batch ID: 68830	TestNo: EPA 245.1	Analysis Date: 7/13/2018	SeqNo: 3078271
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Mercury	2.427	0.050 2.500 0	97.1 75 125 2.422	0.203 20
Sample ID: N031203-001C-DUP	SampType: <b>DUP</b>	TestCode: 245.1_W_LL Units: µg/L	Prep Date: 7/13/2018	RunNo: <b>126203</b>
Client ID: ZZZZZZ	Batch ID: 68830	TestNo: EPA 245.1	Analysis Date: 7/13/2018	SeqNo: 3078273
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Mercury	ND	0.050	0	0 20

Qualifiers:

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- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
  - Spike/Surrogate outside of limits due to matrix interference Calculations are

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- ND Not Detected at the Reporting Limit Calculations are based on raw values
  - Is are based on raw values <u>NEVADA</u> [P:702.307.2659 F:702.307.2691 3151 W. Post Rd., Las Vegas, NV 89118 ELAP Cert 2676 | NV Cert NV00922 ORELAP/NELAP Cert 4046
- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

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# CLIENT: CH2MHill

Work Order: N031203

Project: SFPP Norwalk

# ANALYTICAL QC SUMMARY REPORT

TestCode: 8015\_W\_FP\_SFPP

Sample ID: MB-68833	SampType: MBLK	TestCoo	de: 8015_W_FF	P_ Units: ug/L		Prep Dat	e: 7/13/2018	RunNo: 12	26214	
Client ID: PBW	Batch ID: 68833	TestN	lo: EPA 8015B	EPA 3510C		Analysis Dat	e: 7/13/2018	SeqNo: 3	078326	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD F	Ref Val %RPD	RPDLimit	Qual
TPH-Diesel (C13-C22)	ND	25								
TPH-Oil (C23-C36)	24.857	25								J
Surr: Octacosane	51.444		80.00		64.3	26	152			
Surr: p-Terphenyl	59.426		80.00		74.3	57	132			

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits
- S Spike/Surrogate outside of limits due to matrix interference
- E Value above quantitation range

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ND Not Detected at the Reporting Limit

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 Calculations are based on raw values

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- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

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#### **CLIENT:** CH2MHill Work Order: N031203 **Project:** SFPP Norwalk

# ANALYTICAL QC SUMMARY REPORT

TestCode: 8015\_W\_SFPPTOT

Sample ID: MB-R126214	SampType: MBLK	TestCode: 8015_W_SFP Units: ug/L			Prep Date:				RunNo: 126214		
Client ID: PBW	Batch ID: R126214	Test	TestNo: EPA 8015B			Analysis Date: 7/12/2018				SeqNo: 3080180	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total TPH	68.857	50									

Qualifiers:

- В Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits

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- S Spike/Surrogate outside of limits due to matrix interference
  - 11110 Artesia Blvd., Ste B, Cerritos, CA 90703 ELAP Cert 2921 EPA ID CA01638
- Calculations are based on raw values

Value above quantitation range

ND Not Detected at the Reporting Limit

- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

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#### CLIENT: CH2MHill

Work Order: N031203

Project: SFPP Norwalk

# ANALYTICAL QC SUMMARY REPORT

TestCode: 8015GAS\_WSFPP

Sample ID: E180713LCS	SampType: LCS	TestCode: 8015GAS_WS Units: ug/L				Prep Da	Prep Date:				
Client ID: LCSW	Batch ID: E18VW054	Test	No: EPA 8015	В		Analysis Da	te: 7/13/20	)18	SeqNo: 3078651		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12) Surr: Chlorobenzene - d5	1056.000 50258.000	50	1000 50000	0	106 101	67 74	136 138				
Sample ID: E180713MB1	SampType: <b>MBLK</b>	TestCo	de: 8015GAS	_WS Units: ug/L		Prep Da	te:		RunNo: 126	6223	
Client ID: PBW	Batch ID: E18VW054	Test	No: EPA 8015	В		Analysis Da	te: 7/13/20	018	SeqNo: 307	78652	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12) Surr: Chlorobenzene - d5	44.000 46913.000	50	50000		93.8	74	138				J
Sample ID: N031203-001AMS	SampType: <b>MS</b>	TestCo	de: 8015GAS	_WS Units: ug/L		Prep Da	te:		RunNo: 126	6223	
Sample ID: N031203-001AMS Client ID: ZZZZZZ	SampType: <b>MS</b> Batch ID: <b>E18VW054</b>		de: 8015GAS No: EPA 8015	- 0		Prep Da Analysis Da		)18	RunNo: 126 SeqNo: 307		
			No: EPA 8015	- 0	%REC	Analysis Da	te: 7/13/20	018 RPD Ref Val			Qual
Client ID: ZZZZZZ	Batch ID: E18VW054	Test	No: EPA 8015	B		Analysis Da	te: 7/13/20		SeqNo: <b>30</b> 7	78654	Qual
Client ID: ZZZZZZ Analyte TPH-Gasoline (C4-C12)	Batch ID: E18VW054 Result 914.000	Testl PQL 50	No: EPA 8015 SPK value 1000 50000	B SPK Ref Val	%REC 87.2	Analysis Da LowLimit 67	te: <b>7/13/20</b> HighLimit 136 138		SeqNo: <b>30</b> 7	78654 RPDLimit	Qual
Client ID: ZZZZZZ Analyte TPH-Gasoline (C4-C12) Surr: Chlorobenzene - d5	Batch ID: E18VW054 Result 914.000 51646.000	Testi PQL 50 TestCo	No: EPA 8015 SPK value 1000 50000	B SPK Ref Val 42.00	%REC 87.2 103	Analysis Da LowLimit 67 74	te: 7/13/20 HighLimit 136 138 te:	RPD Ref Val	SeqNo: <b>307</b> %RPD	78654 RPDLimit	Qual
Client ID: ZZZZZZ Analyte TPH-Gasoline (C4-C12) Surr: Chlorobenzene - d5 Sample ID: N031203-001AMSD	Batch ID: <b>E18VW054</b> Result 914.000 51646.000 SampType: <b>MSD</b>	Testi PQL 50 TestCo	No: EPA 8015 SPK value 1000 50000 de: 8015GAS	B SPK Ref Val 42.00	%REC 87.2 103	Analysis Da LowLimit 67 74 Prep Da Analysis Da	te: 7/13/20 HighLimit 136 138 te: te: te: 7/13/20	RPD Ref Val	SeqNo: 307 %RPD RunNo: 126	78654 RPDLimit	Qual

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits

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- S Spike/Surrogate outside of limits due to matrix interference
- E Value above quantitation range
- ND Not Detected at the Reporting Limit

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

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#### **CLIENT:** CH2MHill

Work Order: N031203 **Project:** SFPP Norwalk

# ANALYTICAL QC SUMMARY REPORT

#### TestCode: 8260\_WP\_SFPP

Sample ID: CA180713LCS	SampType: LCS	TestCo	de: 8260_WP	_ <b>SF</b> Units: <b>ug/L</b>	Prep Date:				RunNo: 126238		
Client ID: LCSW	Batch ID: CA18VW009	Test	No: EPA 8260	В		Analysis Da	ite: 7/13/20	)18	SeqNo: 307	9164	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	16.990	0.50	20.00	0	85.0	69	133				
1,2-Dichloroethane	22.380	0.50	20.00	0	112	69	132				
Benzene	19.280	1.0	20.00	0	96.4	81	122				
Ethylbenzene	21.940	1.0	20.00	0	110	73	127				
m,p-Xylene	48.240	1.0	40.00	0	121	76	128				
МТВЕ	16.830	1.0	20.00	0	84.2	65	123				
o-Xylene	19.610	1.0	20.00	0	98.0	80	121				
Tert-Butanol	86.960	5.0	100.0	0	87.0	70	130				
Toluene	21.960	2.0	20.00	0	110	77	122				
Xylenes, Total	67.850	2.0	60.00	0	113	75	125				
Surr: 1,2-Dichloroethane-d4	21.850		25.00		87.4	72	119				
Surr: 4-Bromofluorobenzene	26.730		25.00		107	76	119				
Surr: Dibromofluoromethane	23.520		25.00		94.1	85	115				
Surr: Toluene-d8	27.180		25.00		109	81	120				
Sample ID: CA180713MB3	SampType: MBLK	TestCo	de: 8260_WP	_SF Units: ug/L		Prep Da	te:		RunNo: 126	6238	
Client ID: PBW	Batch ID: CA18VW009	Test	No: EPA 8260	В		Analysis Da	ite: 7/13/20	)18	SeqNo: 307	9167	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	ND	0.50									
1,2-Dichloroethane	ND	0.50									
Benzene	ND	1.0									
Ethylbenzene	ND	1.0									
m,p-Xylene	ND	1.0									
МТВЕ	ND	1.0									
o-Xylene	ND	1.0									
Tert-Butanol	ND	5.0									
Toluene	ND	2.0									
		2.0									
Xylenes, Total	ND	2.0									

#### Qualifiers:

J

- В Analyte detected in the associated Method Blank Analyte detected below quantitation limits
- Е Value above quantitation range
- ND Not Detected at the Reporting Limit
- S Spike/Surrogate outside of limits due to matrix interference
- Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

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#### CLIENT: CH2MHill

Work Order:N031203Project:SFPP Norwalk

# ANALYTICAL QC SUMMARY REPORT

TestCode: 8260\_WP\_SFPP

Sample ID: CA180713MB3	SampType: MBLK	TestCoo	de: 8260_WP_	_SF Units: ug/L		Prep Da	te:		RunNo: 12	6238	
Client ID: PBW	Batch ID: CA18VW009	TestN	lo: EPA 8260	В		Analysis Da	te: 7/13/20	18	SeqNo: 307	79167	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	21.110		25.00		84.4	76	119				
Surr: Dibromofluoromethane	21.500		25.00		86.0	85	115				
Surr: Toluene-d8	22.480		25.00		89.9	81	120				
Sample ID: N031203-001A-MS	SampType: <b>MS</b>	TestCoo	de: 8260_WP_	_SF Units: ug/L		Prep Da	te:		RunNo: 12	6238	
Client ID: ZZZZZZ	Batch ID: CA18VW009	TestN	lo: EPA 8260	В		Analysis Da	te: 7/13/20	18	SeqNo: 307	79169	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	14.080	0.50	20.00	0	70.4	69	133				
1,2-Dichloroethane	20.920	0.50	20.00	0	105	69	132				
Benzene	16.630	1.0	20.00	0	83.2	81	122				
Ethylbenzene	19.470	1.0	20.00	0	97.4	73	127				
m,p-Xylene	42.610	1.0	40.00	0	107	76	128				
MTBE	15.120	1.0	20.00	0	75.6	65	123				
o-Xylene	16.250	1.0	20.00	0	81.2	80	121				
Tert-Butanol	88.800	5.0	100.0	0	88.8	70	130				
Toluene	17.300	2.0	20.00	0	86.5	77	122				
Xylenes, Total	58.860	2.0	60.00	0	98.1	75	125				
Surr: 1,2-Dichloroethane-d4	20.640		25.00		82.6	72	119				
Surr: 4-Bromofluorobenzene	24.220		25.00		96.9	76	119				
Surr: Dibromofluoromethane	22.090		25.00		88.4	85	115				
Surr: Toluene-d8	20.170		25.00		80.7	81	120				S
Sample ID: N031203-001A-MSD	SampType: <b>MSD</b>	TestCoo	de: 8260_WP_	_SF Units: ug/L		Prep Da	te:		RunNo: 12	6238	
Client ID: ZZZZZZ	Batch ID: CA18VW009	TestN	lo: EPA 8260	В		Analysis Da	te: 7/13/20	18	SeqNo: 307	79170	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	15.180	0.50	20.00	0	75.9	69	133	14.08	7.52	20	
1,2-Dichloroethane	21.330	0.50	20.00	0	107	69	132	20.92	1.94	20	
Benzene	17.200	1.0	20.00	0	86.0	81	122	16.63	3.37	20	
0 P.											

#### Qualifiers:

J

B Analyte detected in the associated Method Blank

- Analyte detected below quantitation limits
- E Value above quantitation range
- ND Not Detected at the Reporting Limit

S Spike/Surrogate outside of limits due to matrix interference

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

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CALIFORNIA P:562.219.7435 F:562.219.7436

19 of 22

<u>NEVADA</u> | P:702.307.2659 F:702.307.2691 3151 W. Post Rd., Las Vegas, NV 89118 ELAP Cert 2676 | NV Cert NV00922 ORELAP/NELAP Cert 4046

#### CLIENT: CH2MHill

Work Order:N031203Project:SFPP Norwalk

## ANALYTICAL QC SUMMARY REPORT

#### TestCode: 8260\_WP\_SFPP

Sample ID: N031203-001A-MSD	SampType: <b>MSD</b>	TestCo	de: 8260_WP_	_SF Units: ug/L		Prep Da	te:		RunNo: 120	6238	
Client ID: ZZZZZZ	Batch ID: CA18VW009	Test	TestNo: EPA 8260B			Analysis Da	te: 7/13/20	18	SeqNo: 3079170		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	18.940	1.0	20.00	0	94.7	73	127	19.47	2.76	20	
m,p-Xylene	40.850	1.0	40.00	0	102	76	128	42.61	4.22	20	
MTBE	16.110	1.0	20.00	0	80.6	65	123	15.12	6.34	20	
o-Xylene	16.000	1.0	20.00	0	80.0	80	121	16.25	1.55	20	
Tert-Butanol	92.560	5.0	100.0	0	92.6	70	130	88.80	4.15	20	
Toluene	17.230	2.0	20.00	0	86.2	77	122	17.30	0.405	20	
Xylenes, Total	56.850	2.0	60.00	0	94.8	75	125	58.86	3.47	20	
Surr: 1,2-Dichloroethane-d4	24.180		25.00		96.7	72	119		0		
Surr: 4-Bromofluorobenzene	23.980		25.00		95.9	76	119		0		
Surr: Dibromofluoromethane	22.620		25.00		90.5	85	115		0		
Surr: Toluene-d8	21.180		25.00		84.7	81	120		0		

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits
- S Spike/Surrogate outside of limits due to matrix interference
- E Value above quantitation range
- ND Not Detected at the Reporting Limit

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

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 NEVADA
 P:702.307.2659
 F:702.307.2691

 11110
 Artesia
 BiVd., Ste B, Cerritos, CA 90703
 3151
 W. Post Rd., Las Vegas, NV 89118

 ELAP Cert 2921
 EPA ID CA01638
 ELAP Cert 2676
 NV Cert NV00922

 ORELAP/NELAP Cert 4046
 ORELAP/NELAP Cert 4046

#### **CLIENT:** CH2MHill

Work Order: N031203 **Project:** SFPP Norwalk

## ANALYTICAL QC SUMMARY REPORT

#### TestCode: 8270WATER\_SIMEXT

Sample ID: LCS-69916	SampType: LCS	TestCode: 8270WATER_ Units: µg/L	Prep Date: 7/19/2018	RunNo: 126427
Client ID: LCSW	Batch ID: 69916	TestNo: EPA 8270C EPA 3510C	Analysis Date: 7/23/2018	SeqNo: 3087517
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Phenol	4.350	1.0 6.000 0	72.5 24 120	
Surr: 1,2-Dichlorobenzene-d4	0.610	1.000	61.0 16 120	
Surr: 2-Fluorobiphenyl	0.710	1.000	71.0 25 120	
Surr: 4-Terphenyl-d14	1.340	1.000	134 46 132	S
Surr: Phenol-d5	0.410	1.000	41.0 15 120	
Sample ID: MB-69916	SampType: MBLK	TestCode: 8270WATER_ Units: µg/L	Prep Date: 7/19/2018	RunNo: 126427
Client ID: PBW	Batch ID: 69916	TestNo: EPA 8270C EPA 3510C	Analysis Date: 7/23/2018	SeqNo: 3087518
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Phenol	ND	1.0		
Surr: 1,2-Dichlorobenzene-d4	0.800	1.000	80.0 16 120	
Surr: 2-Fluorobiphenyl	0.530	1.000	53.0 25 120	
Surr: 4-Terphenyl-d14	1.200	1.000	120 46 132	
Surr: Phenol-d5	0.360	1.000	36.0 15 120	
Sample ID: N031203-001D-MS	SampType: <b>MS</b>	TestCode: 8270WATER_ Units: µg/L	Prep Date: 7/19/2018	RunNo: 126427
Client ID: ZZZZZZ	Batch ID: 69916	TestNo: EPA 8270C EPA 3510C	Analysis Date: 7/23/2018	SeqNo: 3087520
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Phenol	3.400	1.0 6.000 0	56.7 24 120	
Surr: 1,2-Dichlorobenzene-d4	0.600	1.000	60.0 16 120	
Surr: 2-Fluorobiphenyl	0.620	1.000	62.0 25 120	
Surr: 4-Terphenyl-d14	1.350	1.000	135 46 132	S

Qualifiers:

S

- В Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits

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Е Value above quantitation range

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EPA ID CA01638

- ND Not Detected at the Reporting Limit
- Spike/Surrogate outside of limits due to matrix interference
- Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

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NEVADA | P:702.307.2659 F:702.307.2691 3151 W. Post Rd., Las Vegas, NV 89118 ELAP Cert 2676 | NV Cert NV00922 ORELAP/NELAP Cert 4046

#### CLIENT: CH2MHill

Work Order:N031203Project:SFPP Norwalk

## ANALYTICAL QC SUMMARY REPORT

#### TestCode: 8270WATER\_SIMEXT

Sample ID: N031203-001D-MSD	SampType: <b>MSD</b>	TestCoo	le: 8270WATE	ER_ Units: µg/L		Prep Da	te: 7/19/20	18	RunNo: 126	6427	
Client ID: ZZZZZZ	Batch ID: 69916	TestN	lo: EPA 82700	C EPA 3510C		Analysis Da	te: 7/23/20	18	SeqNo: 308	37521	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	3.672	1.0	6.154	0	59.7	24	120	3.400	7.69	20	
Surr: 1,2-Dichlorobenzene-d4	0.626		1.026		61.0	16	120		0		
Surr: 2-Fluorobiphenyl	0.605		1.026		59.0	25	120		0		
Surr: 4-Terphenyl-d14	1.456		1.026		142	46	132		0		S
Surr: Phenol-d5	0.328		1.026		32.0	15	120		0		

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits
- S Spike/Surrogate outside of limits due to matrix interference
- E Value above quantitation range
- ND Not Detected at the Reporting Limit

Calculations are based on raw values

H Holding times for preparation or analysis exceededR RPD outside accepted recovery limits

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EPA ID CA01638

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22 of 22

#### Asset Laboratories 3151 W. Post Road Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691 Marion Cartin (marion@assetlaboratories.com)

N031203

CHAIN OF CUSTODY RECORD 12/18 7 DATE: PAGE:

Section A Required Clier		Section B Required Project Information:	Section C Involce Information:	Section D Sanplur Information;
Company:	Attention: Steve Defibaugh	Report ?o: Eric Davis	Attention: Steve Defibrugh - Ref. AFE8 81195	Sampler James Dye
Address:	Orange, CA 92868	Copy To: Steve Defibaugh	Company Kinder Morgan Energy Partners Name:	Sampler Signature:
	eric davis@ch2m.com	Purchase Order No.:	Address: 1100 Town & Country Road Orange, CA 92868	Sample 7/12/18
Phone: 714	-560-4802 Fax: 714-560-4801	Project Name: SFPP Norwalk	ATL Project Marion Carlin Manager;	

ection	E Sample Information					CONTAINER	TYPE		V	V	A	Р	A	Р	P	G	Ρ	Р					
quirea	an of an order of the other other of the other of the other other of the other o					# OF CONTA	INERS		3	3	3	1	э	1	1	3	1	1				_	
						PRESERVAT	TIVE		н	н		N				5	5	-					
						VOLUME (	mL)		40	40	1000	500	1000	1000	1000	1000	500	1000					
ITEM #	SAMPLE ID	LOCATION/ DESCRIPTION	MATRIX	SAMPLE TYPE (G=GRAB C=COMP)	DATE	IPLING	TOTAL # OF CONTAINERS	Analvais Test	BTEK, 1,1-DCA, 1,2-DCA, MTBE, TBA (\$260B)	PH-gas (8015B)	TPH-d, TPH-oll, Total TPH (8015B)	Cu, Pb, Zn (200.3); Hg (243.1)	henol (8270)	80D (@ 20 deg. C](SM52108)	Total Suspended Solids (SM2540D); Turbidity (SM21308)	Oll & Grease (1664)	immonia Nitrogen (as N) (SM-4500 NH3C)	ettleable Solids (SM2540F)					
1	EFF-0212	EFFLUENT	ww		7/12/13			+	x	x	X	x	X	x	<u>⊣ ⊣</u> x	x	X	x		-	$\rightarrow$	-	Comments
2				1		1																	Report metals, TPH and VOC preliminary data on 24-br TAT
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4		<u>_</u>	1	Mətrix: W = Water	WW = Wastewate	25 <i>bn</i>			samples received after			P = Pint	A = Amber
4			1	W = Water	WW = Wastewate		Preservatives: H = HCl	3:00 PM,	S = H2SO4	Container Type	V=V0A		A = Amber
			1	W = Water O = Oil	WW = Wastewate P = Product	er  S = Soil	Preservatives;	3;00 PM,		Container Type		P = Pint G = Glass	A = Amber
4			1	W = Water	WW = Wastewate P = Product		Preservatives: H = HCl	9:00 PM, N = HNO3 O = NaOH	S = H2SO4	Container Type	V=V0A		A = Amber

650#:1559

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	7/12/2018	3			Workorder:	N031203		
Rep sample Temp (Deg C):	3.8				IR Gun ID:	2		
Temp Blank:	✓ Yes	🗌 No						
Carrier name:	Golden St	tate Overnight						
Last 4 digits of Tracking No .:	1559			Packing	Material Used:	Bubble Wrap		
Cooling process:	✓ Ice	Ice Pack	Dry Ice	Other	None None			
		S	ample Recei	ot Checklis	t			
1. Shipping container/cooler in g	good conditio	on?	-		Yes 🗹	No 🗌	Not Present	
2. Custody seals intact, signed,	dated on sh	ippping container/	cooler?		Yes	No 🗌	Not Present	$\checkmark$
3. Custody seals intact on samp	le bottles?				Yes	No 🗌	Not Present	$\checkmark$
4. Chain of custody present?					Yes 🗹	No 🗌		
5. Sampler's name present in C	OC?				Yes 🗹	No 🗌		
6. Chain of custody signed whe	n relinquishe	ed and received?			Yes 🗹	No 🗌		
7. Chain of custody agrees with	sample labe	els?			Yes 🗹	No 🗌		
8. Samples in proper container/l	oottle?				Yes 🗹	No 🗌		
9. Sample containers intact?					Yes 🗹	No 🗌		
10. Sufficient sample volume fo	r indicated te	est?			Yes 🗹	No 🗌		
11. All samples received within	holding time	?			Yes 🗹	No 🗌		
12. Temperature of rep sample	or Temp Bla	ank within accepta	ble limit?		Yes 🗹	No 🗌	NA	
13. Water - VOA vials have zero	o headspace	?			Yes 🗹	No 🗌	NA	
14. Water - pH acceptable upor Example: pH > 12 for (CN	•	or Metals			Yes 🗹	No 🗌	NA	
15. Did the bottle labels indicate	correct pre	servatives used?			Yes 🗹	No 🗌	NA	
16. Were there Non-Conforman W	ce issues at as Client no	-			Yes 🗌 Yes 🗌	No 🗌 No 🔲	NA NA	<ul><li>✓</li><li>✓</li></ul>
Comments:								







Subsentester

# **CHAIN-OF-CUSTODY RECORD**

Page 1 of 1

QC Level: RTNE

BC Labs 4100 Atlas Court Bakersfield, CA 93308		327-4911 327-1918		Field Sampler:	SIGNED	12-Jul-18
			Г		Requested Tests	
Sample ID	Matrix	Date Collected	Bottle Type	SM 5210 B	SM4500-NH3C	
N031203-001E / EFF-07-12	Wastewater	7/12/2018 1:30:00 PM	320ZA	1		
N031203-001H / EFF-07-12	Wastewater	7/12/2018 1:30:00 PM	16OZP		1	

EDD Requirement: CH2MHILL LabSpec7 Report Format: MDL/PQL "J-flagged" Please cc report to Lucille Golosinda at lucille.golosinda@assetlaboratories.com

General Comments: Please email sample receipt acknowledgement to the PM.

Please use PO#:N31203A Please email Invoices and Account Receivable Statements to elvira@assetlaboratories.com. For questions, call Marion at (702)-307-2659. Please e-mail results to reports.lv@assetlaboratories.com by: Normal TAT

Please analyze for Ammonia and BOD.

Date/Time	Date/Time
Relinquished by: Hanah Glodoviza 4 07/12/18 1800	Received by:
Relinquished by:	Received by:

WORK C	RDER Summar	V				13-Jul-18	
		•				WorkOrd	er: N031203
Client ID: Project:	CH2HI03 SFPP Norwalk		QC Leve			Date Receive	ed: 7/12/2018
Comments:		nd VOC preliminary data	-		enes	Dute Receive	u. //12/2010
Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld MS Sub Storage
N031203-001A	EFF-07-12	7/12/2018 1:30:00 PM	7/13/2018	Wastewater	EPA 8015B	GASOLINE RANGE ORGANICS BY GC/FID	
			7/13/2018		EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS	
N031203-001B			7/13/2018		EPA 3510C	SEPARATORY FUNNEL EXTRACTION: EXTRACTABLE FUELS	U U WW
			7/13/2018		EPA 8015B	TPH EXTRACTABLE BY GC/FID	WW WW
			7/13/2018		EPA 8015B	Total TPH	WW WW
N031203-001C			7/13/2018			AQPREP TOTAL METALS: ICP, FLAA	WW
			7/13/2018		EPA 200.8	TOTAL METALS BY ICPMS	ww
			7/13/2018		EPA 245.1	MERCURY BY COLD VAPOR TECHNIQUE	U U WW
			7/13/2018			MERCURY PREP	WW
N031203-001D			7/19/2018		EPA 3510C	SEPARATORY FUNNEL EXTRACTION: 8270C - SIM	u u ww
			7/19/2018		EPA 8270C	SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS	ww
N031203-001E			7/19/2018		SM 5210 B	BIOCHEMICAL OXYGEN DEMAND	SUB
N031203-001F			7/19/2018		SM2540D	TOTAL NON-FILTERABLE RESIDUE	
			7/19/2018			Total Suspended Solids Prep	
			7/19/2018		SM 2130B	TURBIDITY	
N031203-001G			7/19/2018			Oil and Grease Sample Prep	WW
			7/19/2018		EPA 1664 _HEM	Hexane Extractable Material (HEM)	WW
N031203-001H			7/19/2018		SM4500-NH3C	AMMONIA-N	SUB
N031203-001I			7/19/2018		SM2540F	SETTLEABLE MATTER	ww
			7/19/2018			Setteable Matter	ww

WORK C	RDER Summar	y					13-Jul-18
Client ID:	CH2HI03						WorkOrder: N031203
Project:	SFPP Norwalk			Date Received: 7/12/2018			
Comments:	Report metals, TPH an	nd VOC preliminary dat					
Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld MS Sub Storage
N031203-002A	FOLDER	7/13/2018	7/13/2018		Folder	Folder	
			7/13/2018		Folder	Folder	



#### Ship From ASSET LABORATORIES MOLKY BRAR 11110 ARTESIA BLVD. SUITE B CERRITOS, CA 90703

Ship To ASSET LABORATORIES MARLON CARTIN 3151 W. POST RD., LAS VEGAS, NV 89118

COD: \$0.00 Weight: 0 lb(s) **Reference:** 

**Delivery Instructions:** HOLD FOR PICK-UP Signature Type: NOT REQUIRED



800-322-5555

Package 1 of 3

LABEL INSTRUCTIONS:

#### Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

87259006

Step 1: Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer. Step 2: Fold this page in half.

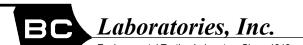
Step 3: Securely attach this label to your package and do not cover the barcode.

#### **TERMS AND CONDITIONS:**

By giving us your shipment to deliver, you agree to all of the GSO service terms & conditions including, but not limited to; limits of liability, declared value conditions, and claim procedures which are available on our website at www.gso.com,

3.8% sn# 2

Print Date: 7/12/2018 6:02 PM



Date of Report: 07/23/2018

Marlon Cartin

ASSET Laboratories 3151-3153 W. Post Rd Las Vegas, NV 89118

Client Project:N031203BCL Project:Cerritos - EDDBCL Work Order:1821923Invoice ID:B310418

Enclosed are the results of analyses for samples received by the laboratory on 7/13/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Vanessa Sandoval Client Service Rep

Stuart Buttram Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101



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Laboratories, Inc. 

ASSET Laboratories 3151-3153 W. Post Rd Las Vegas, NV 89118 Reported:07/23/201811:08Project:Cerritos - EDDProject Number:N031203Project Manager:Marlon Cartin

# Laboratory / Client Sample Cross Reference

Laboratory ID	Client Sample Information										
1821923-01	COC Number:		Receive Date:	07/13/2018 08:38							
	Project Number:		Sampling Date:	07/12/2018 13:30							
	Sampling Location:		Sample Depth:								
	Sampling Point:	N031203-001E / EFF-07-12	Lab Matrix:	Water							
	Sampled By:		Sample Type:	Wastewater							
1821923-02	COC Number:		Receive Date:	07/13/2018 08:38							
	Project Number:		Sampling Date:	07/12/2018 13:30							
	Sampling Location:		Sample Depth:								
	Sampling Point:	N031203-001H / EFF-07-12	Lab Matrix:	Water							
	Sampled By:		Sample Type:	Wastewater							

Laboratories, Inc.

ASSET Laboratories 3151-3153 W. Post Rd Las Vegas, NV 89118 Reported:07/23/201811:08Project:Cerritos - EDDProject Number:N031203Project Manager:Marlon Cartin

# Water Analysis (General Chemistry)

BCL Sample ID:	1821923-01	Client Sampl	e Name:	N031203-	001E / EFI	=-07-12, 7/12/201	8 1:30:00PM	1	
Constituent		Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Biochemical Oxygen	Demand -	2.8	mg/L	1.5	1.5	SM17-5210B			1

			Run				QC
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID
1	SM17-5210B	07/13/18 09:40	07/13/18 09:40	HPR	YSIPRO	1.525	B019225

Laboratories, Inc.

ASSET Laboratories 3151-3153 W. Post Rd Las Vegas, NV 89118 Reported:07/23/201811:08Project:Cerritos - EDDProject Number:N031203Project Manager:Marlon Cartin

# Water Analysis (General Chemistry)

BCL Sample ID:	1821923-02	Client Sample	e Name:	N031203-	001H / EFI	-07-12, 7/12/201	8 1:30:00PN	1	
Constituent		Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Ammonia as N (Distill	ed)	0.082	mg/L	0.20	0.078	SM-4500-NH3G	ND	J	1

			Run				QC
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID
1	SM-4500-NH3G	07/18/18 08:28	07/18/18 13:57	JMH	SC-1	1	B019183

Laboratories, Inc.

ASSET Laboratories 3151-3153 W. Post Rd Las Vegas, NV 89118 Reported:07/23/201811:08Project:Cerritos - EDDProject Number:N031203Project Manager:Marlon Cartin

# Water Analysis (General Chemistry)

# **Quality Control Report - Method Blank Analysis**

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B019183						
Ammonia as N (Distilled)	B019183-BLK1	ND	mg/L	0.20	0.078	
QC Batch ID: B019225						
Biochemical Oxygen Demand - Seeded	B019225-BLK1	ND	mg/L	1.0	1.0	

Laboratories, Inc.

ASSET Laboratories 3151-3153 W. Post Rd Las Vegas, NV 89118 Reported:07/23/201811:08Project:Cerritos - EDDProject Number:N031203Project Manager:Marlon Cartin

# Water Analysis (General Chemistry)

# **Quality Control Report - Laboratory Control Sample**

								Control L	imits	
Constituent	QC Sample ID	Туре	Result	Spike Level	Units	Percent Recovery	RPD	Percent Recovery	RPD	Lab Quals
QC Batch ID: B019183										
Ammonia as N (Distilled)	B019183-BS1	LCS	1.0170	1.0000	mg/L	102		85 - 115		
QC Batch ID: B019225										
Biochemical Oxygen Demand - Seeded	B019225-BS1	LCS	205.11	198.00	mg/L	104		85 - 115		

Laboratories, Inc.

ASSET Laboratories 3151-3153 W. Post Rd Las Vegas, NV 89118 Reported:07/23/201811:08Project:Cerritos - EDDProject Number:N031203Project Manager:Marlon Cartin

# Water Analysis (General Chemistry)

# **Quality Control Report - Precision & Accuracy**

									Cont	rol Limits	
		Source	Source		Spike			Percent		Percent	Lab
Constituent	Туре	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery	Quals
QC Batch ID: B019183	Use	d client samp	ole: Y - Des	cription: N0	31203-001H	/ EFF-07-	-12, 07/	12/2018 13	:30		
Ammonia as N (Distilled)	DUP	1821923-02	0.081600	ND		mg/L			20		
	MS	1821923-02	0.081600	0.95710	1.0000	mg/L		87.6		80 - 120	
	MSD	1821923-02	0.081600	0.95410	1.0000	mg/L	0.3	87.2	20	80 - 120	
QC Batch ID: B019225	Use	d client samp	ole: N								
Biochemical Oxygen Demand - Seeded	DUP	1821886-01	5.0427	4.6970		mg/L	7.1		20		

Laboratories, Inc.

1	ASSET Laboratories Reported:	07/23/2018 11:08
3	3151-3153 W. Post Rd Project:	Cerritos - EDD
L	Las Vegas, NV 89118 Project Number:	N031203
	Project Manager:	Marlon Cartin

#### **Notes And Definitions**

J	Estimated Value (CLP Flag)
MDL	Method Detection Limit

- ND Analyte Not Detected
- PQL Practical Quantitation Limit

# Kinder Morgan Field Meter Calibration and Log Form

Calibration Standard:       (res)       No       Standard       Expiration Date       Calibrated Within 0.2 pH units?         Calibration Standard       4       6//9       (res)       No         PH Calibration Standard       7       ///1/9       (res)       No         Ord. Calibration Standard       6       7       ///1/9       (res)       No         Cond. Calibration       Equipment Reading:       Calibrated to or within 10%?       Yes       No         Cond. Calibration       Equipment Reading:       Calibrated to or within 10%?       Yes       No         StateLD PARAMETERS       FIELD MEASUREMENTS       No       No       Nid-Point         TIME       14/14       Downstream (RSW-002)       Mid-Point         TIME       14/14            PH (DISCHARGE LIMIT 6.5 - 8.5) (Quarterly, Annually)       7,2,5            FIELD Y       72,55              COND (mS/cm or uS/cm; Specific Cond.)                COND (mS/cm or uS/cm; Specific Cond.) <th>Site Name</th> <th>Site Location</th> <th>Project Manager</th> <th>CH2M Personnel</th> <th></th> <th colspan="3">luent Monitoring Form</th>	Site Name	Site Location	Project Manager	CH2M Personnel		luent Monitoring Form		
Image: Source of Calibration     Image: Source of Calibration     Image: Source of Calibration     Image: Source of Calibration       Make: SSG     Make: SSG     Make: SSG     Make: SSG       Model: SSG     MRSS       Serial Number: O 2 L O 2 7 S A C       ALIBRATION       ate of Calibration:     7//2//3       Time:       alibration Standard:     Yes       Yes     No       Acalibration Standard     Calibrated to ro within 10%?       Yes     No       Interviewer     Interviewer       Alibration Standard:     Calibrated to ro within 10%?       Yes     No       Interviewer     Interviewer       Interviewer     Interviewer       Alibration Standard:     Yes       Yes     No       Interviewer     Interviewer       <	SFPP Norwalk Pump Station	Norwalk, CA	Steve Defibaugh		Norwal	k, CA		
O&M Technician#1         O&M Technician#2           James Dye	Date	Time	SAMPLE TY	/PE (circle one):	Discharge Permit	Expiration Date		
James Dye JQUIPMENT  Autimeter Make: <u>UST</u> Model: <u>556 MQS</u> Serial Number: <u>0260275 A C</u> ALIBRATION  ALIBRATION  ALIBRATION  4 <u>6//9</u> (res) No  4 <u>6//9</u> (res) No  4 <u>6//9</u> (res) No  10 ////9 (res) No  10 ///9	7/12/13	14/14	Grab, Composite	, Flow-through, Other	R4-2016-0309	11/1/2021		
QUIPMENT         Make:       YST         Multimeter       Make:       YST         Model:       S5G       MPS         Serial Number:       O 2 4 0 2 7 5 A C         ALIBRATION         Date of Calibration:       7/12/13         Time:       Image: No         Standard       Expiration Date         Calibration Standard:       (res)         Vestor       No         4       G//19         4       G//19         4       G//19         7       ///19         10       ///19         10       ///19         10       ///19         Calibration Standard       Equipment Reading:         Calibrated to or within 10%?       Yes         No       No         IALIB PARAMETERS       FIELD MEASUREMENTS         Effluent (EFF-001)       Upstream (RSW-002)       Mid-Point         IME       14/14          H (DISCHARGE LIMIT 6.5 - 8.5) (Quarterly, Annually)       7, 2, 5          ALINITY (ppt)       Image: Not Standard       Image: Not Standard         OND (mS/cm or uS/cm; Specific Cond.)       Image: Not Standard       Image: Not Stan	O&M Technician#1	O&M Technician#2						
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	James Dye							
IOL         Model:       556 MPS         Serial Number:       0 2 L0 2 7 5 A C         CALIBRATION         Time:         Calibration:         7/12/13       Time:         Calibration:         7/12/13       Time:         Calibration Date         Calibration Standard:         4       6/19       Cess       No         4       6/19       Cess       No         4       6/19       Cess       No         Calibration Date       Calibrated Within 0.2 pH units?         4       6/19       Cess       No         To 1/119       Cess       No         Calibration Date       Calibrated Within 0.2 pH units?         4       6/19       Cess       No         To 1/119       Cess       No         Time:       Calibration Date       Calibration Standard         Field Measurements         Effluent (EFF-001)       Upstream (RSW-001)       Downstream (RSW-002)       Mid-Point         IMIT 6.5 - 8.5) (Quarterly, Annually)	QUIPMENT							
Calibration       7/12//3       Time:         Calibration Standard:       Yes       No       Standard       Expiration Date       Calibrated Within 0.2 pH units?         Calibration Standard:       Yes       No       Standard       Expiration Date       Calibrated Within 0.2 pH units?         Calibration Standard       Yes       No       No       No       No         Calibration Standard       Equipment Reading:       Calibrated to or within 10%?       Yes       No         Stond. Calibration       Equipment Reading:       Calibrated to or within 10%?       Yes       No         IEED PARAMETERS       FIELD MEASUREMENTS       No       Mid-Point         IME       I/4 1/4       Downstream (RSW-002)       Mid-Point         IME       I/4 1/4       I/4 1/4       I/4 1/4         H (DISCHARGE LIMIT 6.5 - 8.5) (Quarterly, Annually)       7.4/       I/4 I/4       I/4 I/4         EMP (*F) (DISCHARGE LIMIT 86*F) (Quarterly, Annually)       7.2.5       I/4 I/4       I/4 I/4       I/4 I/4         OND (mS/cm or uS/cm; Specific Cond.)       I/4 I/4	Make: 45	I						
Calibration       7/12//3       Time:         Calibration Standard:       Yes       No       Standard       Expiration Date       Calibrated Within 0.2 pH units?         Calibration Standard:       Yes       No       Standard       Expiration Date       Calibrated Within 0.2 pH units?         Calibration Standard       Yes       No       No       No       No         Calibration Standard       Equipment Reading:       Calibrated to or within 10%?       Yes       No         Stond. Calibration       Equipment Reading:       Calibrated to or within 10%?       Yes       No         IEED PARAMETERS       FIELD MEASUREMENTS       No       Mid-Point         IME       I/4 1/4       Downstream (RSW-002)       Mid-Point         IME       I/4 1/4       I/4 1/4       I/4 1/4         H (DISCHARGE LIMIT 6.5 - 8.5) (Quarterly, Annually)       7.4/       I/4 I/4       I/4 I/4         EMP (*F) (DISCHARGE LIMIT 86*F) (Quarterly, Annually)       7.2.5       I/4 I/4       I/4 I/4       I/4 I/4         OND (mS/cm or uS/cm; Specific Cond.)       I/4 I/4	Aultimeter Model: 55	56 MPS						
Date of Calibration:       7/12/13       Time:         Calibration Standard:       Yes       No       Standard       Expiration Date       Calibrated Within 0.2 pH units?         Calibration Standard:       Yes       No       Standard       Expiration Date       Calibrated Within 0.2 pH units?         OH Calibration Standard       4       G//9       Yes       No         OH Calibration Standard       7       ///19       Ges3       No         Cond. Calibration       Equipment Reading:       Calibrated to or within 10%?       Yes       No         Standard Elevent       Calibrated to or within 10%?       Yes       No         ITELD PARAMETERS       FIELD MEASUREMENTS       No         ITIME       1/414       Image: Calibrated to or within 10%?       Mid-Point         ITIME       1/414       Image: Calibrated to or within 0.5 - 8.5) (Quarterly, Annually)       7.4/       Image: Calibrated to or within 0.5 - 8.5)         Itime:       1/414       Image: Calibrated to or within 0.5 - 8.5) (Quarterly, Annually)       7.4/       Image: Calibrated to or within 0.5 - 8.5)         Itime:       1/414       Image: Calibrated to or within 0.5 - 8.5)       Calibrated to or within 0.5 - 8.5)       Mid-Point         Itime:       1/414       Image: Calibrated to or within 0.5 - 8.5)	Serial Number:	024027	SAC					
Calibration Standard:       (Yes)       No       Standard       Expiration Date       Calibrated Within 0.2 pH units?         pH Calibration Standard       4       6//9       Yes)       No         pH Calibration Standard       7       ///1/9       (Yes)       No         pH Calibration Standard       7       ///1/9       (Yes)       No         cond. Calibration       Equipment Reading:       Calibrated to or within 10%?       Yes       No         cond. Calibration       Equipment Reading:       Calibrated to or within 10%?       Yes       No         cond. Calibration       Equipment Reading:       Calibrated to or within 10%?       Yes       No         cond. Calibration       Equipment Reading:       Calibrated to or within 10%?       Yes       No         cond. Calibration       Equipment Reading:       Calibrated to or within 10%?       Yes       No         cond. Calibrater PS       Effluent (EFF-001)       Upstream (RSW-001)       Downstream (RSW-002)       Mid-Point         iME       1/4/14       I/4/14       I/	ALIBRATION							
4       6/19       Ves       No         7       1/19       Ces       No         10       10       10       10       No         Cond. Calibration       Equipment Reading:       Calibrated to or within 10%?       Yes       No         FIELD MEASUREMENTS         FIELD MEASUREMENTS         Effluent (EFF-001)       Upstream (RSW-001)       Downstream (RSW-002)       Mid-Point         IME         If USCHARGE LIMIT 6.5 - 8.5) (Quarterly, Annually)         7       7       7       1         Cond. Calibrated to or within 10%?         Ves       No         IELD MEASUREMENTS         Effluent (EFF-001)       Upstream (RSW-002)       Mid-Point         IME       14/14         ODW (rs) (DiSCHARGE LIMIT 6.5 - 8.5) (Quarterly, Annually)       7,2,5         Colspan="2">Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="	Date of Calibration:	7/12/13	Time:					
7       1/1/9       10       No         10       10       1/1/9       (res)       No         Cond. Calibration       Equipment Reading:       Calibrated to or within 10%?       Yes       No         SIELD PARAMETERS       FIELD MEASUREMENTS       No       No       No         SIELD PARAMETERS       Effluent (EFF-001)       Upstream (RSW-001)       Downstream (RSW-002)       Mid-Point         TIME       1/4/14       1 <td>Calibration Standard:</td> <td>Yes No</td> <td>Standard</td> <td>Expiration Date</td> <td>Calibrated Withir</td> <td>n 0.2 pH units?</td>	Calibration Standard:	Yes No	Standard	Expiration Date	Calibrated Withir	n 0.2 pH units?		
Image:     Image: <td></td> <td></td> <td>4</td> <td>6/19</td> <td>(Yes)</td> <td>No</td>			4	6/19	(Yes)	No		
Cond. Calibration     Equipment Reading:     Calibrated to or within 10%?     Yes     No       FIELD MEASUREMENTS       FIELD MEASUREMENTS       Effluent (EFF-001)     Upstream (RSW-001)     Downstream (RSW-002)     Mid-Point       IMIE       IMI (DISCHARGE LIMIT 6.5 - 8.5) (Quarterly, Annually)       7.4       Effluent ("FF) (DISCHARGE LIMIT 86°F) (Quarterly, Annually)       7.2.5       Cond. (ms/cm or us/cm; Specific Cond.)       Cond. (ms/cm or us/cm; Specific Cond.)	H Calibration Standard			1/19	Tes	No		
IELD PARAMETERS     FIELD MEASUREMENTS       IME     I/4/14			10	1/19	Yes	No		
Image: constraint of the		Equipment Reading:	Calibrate	d to or within 10%?	Yes	No		
IME     I414       IME     I414       OH (DISCHARGE LIMIT 6.5 - 8.5) (Quarterly, Annually)     7.4       TEMP (°F) (DISCHARGE LIMIT 86°F) (Quarterly, Annually)     72.5       GALINITY (ppt)     Image: Cond.)       COND (mS/cm or uS/cm; Specific Cond.)     Image: Cond.)       Circle or Note Units Used     Image: Cond.)	IELD PARAMETERS			FIELD ME	ASUREMENTS			
Image: Construction of the second			Effluent (EFF-001)	Upstream (RSW-001)	Downstream (RSW-002)	Mid-Point		
Image: Construction of the second	IME		1414					
ALINITY (ppt)     Image: Cond (Cond) (C	OH (DISCHARGE LIMIT 6.5 - 8.5)	(Quarterly, Annually)	7.4					
COND (mS/cm or uS/cm; Specific Cond.)	EMP (°F) (DISCHARGE LIMIT 86	°F) (Quarterly, Annually)	72.5					
ircle or Note Units Used	ALINITY (ppt)							
BSERVATIONS	COND (mS/cm or uS/cm; Specific Circle or Note Units Used	c Cond.)						
	DBSERVATIONS							
		//						
	INDER	<u> </u>	/					
		1/1		7/1	2/10			
INDER MORGAN 7/10/19	Igned:	ín í		Date:/	0/10			
INDER MORGAN								
INDER MORGAN igned:								

August 15, 2018

Eric Davis
CH2MHill
1000 Wilshire Blvd.
Los Angeles, CA 90017
TEL:
FAX:

Workorder No.: N031531

RE: SFPP Norwalk

Attention: Eric Davis

Enclosed are the results for sample(s) received on August 03, 2018 by ASSET Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

mon umm

Quennie Manimtim Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories - Las Vegas.



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 Blvd.,
 Ste B,
 Cerritos,
 CA 90703

 ELAP
 Cert
 2921
 EPA ID
 CA01638

CLIENT:	CH2MHill
Project:	SFPP Norwalk
Lab Order:	N031531

## **CASE NARRATIVE**

#### SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Sample was analyzed within method holding time.

Results were J-Flag. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" Flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Analytical Comment for EPA 200.8:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for Zinc possibly due to matrix interference. The associated Laboratory Control Sample (LCS) recovery was acceptable.



CLIENT:CH2MHillProject:SFPP NorwalkLab Order:N031531

## **Contract No:**

## Work Order Sample Summary

Lab Sample ID Client Sample ID	Matrix	<b>Collection Date</b>	Date Received	Date Reported
N031531-001A EFF-08-03	Wastewater	8/3/2018 12:50:00 PM	8/3/2018	8/15/2018
N031531-001B EFF-08-03	Wastewater	8/3/2018 12:50:00 PM	8/3/2018	8/15/2018
N031531-001C EFF-08-03	Wastewater	8/3/2018 12:50:00 PM	8/3/2018	8/15/2018
N031531-001D EFF-08-03	Wastewater	8/3/2018 12:50:00 PM	8/3/2018	8/15/2018



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 Cert 2921

 EPA ID
 CA01638

## **ANALYTICAL RESULTS**

Print Date: 15-Aug-18

CLIENT:	CH2MHill			Cl	ient Samp	le ID: EF	FF-08-03	
Lab Order:	N031531				-		3/2018 12:50:	00 PM
Project:	SFPP Norwalk						ASTEWATE	
-					IVI		ASIEWAIE	ĸ
Lab ID:	N031531-001							
Analyses		Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE OR	GANIC COMPOUN	DS BY GC/MS		EDA	8260B			
				EFA				
RunID: <b>MS8</b> _1	180804A	QC Batch: R1	8VW060		PrepE	Date:		Analyst: QBM
1,1-Dichloroet	hane	ND	0.45	0.50		ug/L	1	8/4/2018 01:11 PM
1,2-Dichloroet	hane	ND	0.29	0.50		ug/L	1	8/4/2018 01:11 PM
Benzene		ND	0.34	1.0		ug/L	1	8/4/2018 01:11 PM
Ethylbenzene		ND	0.31	1.0		ug/L	1	8/4/2018 01:11 PM
m,p-Xylene		ND	0.23	1.0		ug/L	1	8/4/2018 01:11 PM
MTBE		ND	0.34	1.0		ug/L	1	8/4/2018 01:11 PM
o-Xylene		ND	0.31	1.0		ug/L	1	8/4/2018 01:11 PN
Tert-Butanol		ND	2.4	5.0		ug/L	1	8/4/2018 01:11 PN
Toluene		ND	0.46	2.0		ug/L	1	8/4/2018 01:11 PM
Xylenes, Total		ND	1.5	2.0		ug/L	1	8/4/2018 01:11 PM
	chloroethane-d4	102	0	72-119		%REC	1	8/4/2018 01:11 PN
	mofluorobenzene	97.2	0	76-119		%REC	1	8/4/2018 01:11 PM
Surr: Dibror	mofluoromethane	106	0	85-115		%REC	1	8/4/2018 01:11 PM
Surr: Toluer	ne-d8	100	0	81-120		%REC	1	8/4/2018 01:11 PM
TPH EXTRAC	TABLE BY GC/FID							
	I	EPA 3510C		EPA	8015B			
RunID: NV009	22-GC3_180806B	QC Batch: 70	24		PrepE	Date:	8/6/2018	Analyst: RRS
TPH-Diesel (C	C13-C22)	ND	16	26		ug/L	1	8/6/2018 04:11 PM
TPH-Oil (C23-	C36)	33	14	26		ug/L	1	8/6/2018 04:11 PM
Surr: Octac	osane	69.8	0	26-152		%REC	1	8/6/2018 04:11 PM
Surr: p-Terp	ohenyl	62.6	0	57-132		%REC	1	8/6/2018 04:11 PM
GASOLINE R	ANGE ORGANICS	BY GC/FID						
				EPA	8015B			
RunID: NV009	22-GC4_180806A	QC Batch: E1	BVW060		PrepE	Date:		Analyst: QBM
TPH-Gasoline	(C4-C12)	27	16	50	J	ug/L	1	8/6/2018 11:50 AM
	benzene - d5	105	0	74-138		%REC	1	8/6/2018 11:50 AM
MERCURY BY	COLD VAPOR TE	CHNIQUE						
				EPA	245.1			
RunID: NV009	22-AA1_180806A	QC Batch: 70	118		Prep	Date:	8/6/2018	Analyst: MG
Mercury		ND	0.018	0.050		µg/L	1	8/6/2018 11:51 AM

Qualifiers:

- Analyte detected in the associated Method Blank В Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit Results are wet unless otherwise specified

- Е Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out



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## **ANALYTICAL RESULTS**

Print Date: 15-Aug-18

CLIENT:	CH2MHill			С	lient Samp	le ID: EF	FF-08-03	
Lab Order:	N031531				Collection	Date: 8/3	3/2018 12:50:	00 PM
Project:	SFPP Norwalk				Μ	atrix: W	ASTEWATE	R
Lab ID:	N031531-001							
Analyses		Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL MET	ALS BY ICPMS							
				EP	A 200.8			
RunID: NV0	0922-ICP7_180807A	QC Batch: 70	122		PrepD	Date:	8/6/2018	Analyst: CEI
Copper		ND	0.26	0.50		µg/L	1	8/7/2018 11:16 AN
Lead		ND	0.13	0.50		µg/L	1	8/6/2018 01:49 PN
Zinc		ND	0.27	1.0		µg/L	1	8/6/2018 01:49 PM
TOTAL TPH								
				EP	A 8015B			
RunID: NV0	0922-GC3_180806B	QC Batch: R1	26745		PrepD	Date:		Analyst: RRS
Total TPH		60	16	50		ug/L	1	8/6/2018

Qualifiers:

Analyte detected in the associated Method Blank

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit Results are wet unless otherwise specified

- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

DO Surrogate Difuted O



В

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**CLIENT:** CH2MHill Work Order: N031531

**Project:** SFPP Norwalk

## ANALYTICAL QC SUMMARY REPORT

#### TestCode: 200.8\_W\_SFPP

Sample ID: Client ID:	: MB-70122 PBW	SampType: MBLK Batch ID: 70122	TestCode: 200.8_W_SFP Units: µg/L TestNo: EPA 200.8	Prep Date: 8/6/2018 Analysis Date: 8/6/2018	RunNo: <b>126750</b> SegNo: <b>3101710</b>
Analyte		Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Lead Zinc		ND ND	0.50 1.0		
Sample ID: Client ID:	: LCS-70122 LCSW	SampType: LCS Batch ID: 70122	TestCode: 200.8_W_SFP Units: µg/L TestNo: EPA 200.8	Prep Date: 8/6/2018 Analysis Date: 8/6/2018	RunNo: <b>126750</b> SeqNo: <b>3101711</b>
Analyte		Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Lead Zinc		9.923 202.656	0.50 10.00 0 1.0 200.0 0	99.2 85 115 101 85 115	
Sample ID: Client ID:	N031531-001C-DUP	SampType: DUP Batch ID: 70122	TestCode: 200.8_W_SFP Units: µg/L TestNo: EPA 200.8	Prep Date: 8/6/2018 Analysis Date: 8/6/2018	RunNo: <b>126750</b> SeqNo: <b>3101714</b>
Analyte		Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Lead Zinc		ND ND	0.50 1.0	0 0	0 20 0 20
Sample ID: Client ID:	: N031531-001C-MS ZZZZZZ	SampType: <b>MS</b> Batch ID: <b>70122</b>	TestCode: 200.8_W_SFP Units: µg/L TestNo: EPA 200.8	Prep Date: <b>8/6/2018</b> Analysis Date: <b>8/6/2018</b>	RunNo: <b>126750</b> SeqNo: <b>3101716</b>
Analyte		Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Lead Zinc		8.700 178.174	0.50 10.00 0 1.0 100.0 0	87.07512517875125	S
Sample ID: Client ID:	: N031531-001C-MSD ZZZZZZ	SampType: <b>MSD</b> Batch ID: <b>70122</b>	TestCode: 200.8_W_SFP Units: µg/L TestNo: EPA 200.8	Prep Date: <b>8/6/2018</b> Analysis Date: <b>8/6/2018</b>	RunNo: <b>126750</b> SeqNo: <b>3101717</b>
Analyte		Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual

#### Qualifiers:

J

- В Analyte detected in the associated Method Blank
  - Analyte detected below quantitation limits

ASSET LABORATORIES

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- Е Value above quantitation range
- ND Not Detected at the Reporting Limit
- S Spike/Surrogate outside of limits due to matrix interference
- Calculations are based on raw values

H Holding times for preparation or analysis exceeded

R RPD outside accepted recovery limits

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NEVADA | P:702.307.2659 F:702.307.2691

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#### CLIENT: CH2MHill

Work Order:N031531Project:SFPP Norwalk

#### ANALYTICAL QC SUMMARY REPORT

TestCode: 200.8\_W\_SFPP

Sample ID: N031531-001C	MSD SampType: MSD Batch ID: 70122	TestCode: 200.8_W_SFP Units: µg/L TestNo: EPA 200.8	Prep Date: 8/6/2018 Analysis Date: 8/6/2018	RunNo: <b>126750</b> SeqNo: <b>3101717</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Lead Zinc	8.693 179.311	0.50 10.00 0 1.0 100.0 0	86.9751258.70017975125178.2	0.0890 20 0.636 20 S
Sample ID: <b>MB-70122</b> Client ID: <b>PBW</b>	SampType: MBLK Batch ID: 70122	TestCode: 200.8_W_SFP Units: µg/L TestNo: EPA 200.8	Prep Date: 8/6/2018 Analysis Date: 8/7/2018	RunNo: <b>126758</b> SeqNo: <b>3102302</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Copper	ND	0.50		
Sample ID: LCS-70122 Client ID: LCSW	SampType: LCS Batch ID: 70122	TestCode: 200.8_W_SFP Units: µg/L TestNo: EPA 200.8	Prep Date: <b>8/6/2018</b> Analysis Date: <b>8/7/2018</b>	RunNo: <b>126758</b> SeqNo: <b>3102303</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Copper	9.880	0.50 10.00 0	98.8 85 115	
Sample ID: N031531-001C	-DUP SampType: DUP Batch ID: 70122	TestCode: 200.8_W_SFP Units: µg/L TestNo: EPA 200.8	Prep Date: <b>8/6/2018</b> Analysis Date: <b>8/7/2018</b>	RunNo: <b>126758</b> SeqNo: <b>3102306</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Copper	ND	0.50	0	0 20
Sample ID: N031531-001C	Batch ID: 70122	TestCode: 200.8_W_SFP Units: µg/L TestNo: EPA 200.8	Prep Date: 8/6/2018 Analysis Date: 8/7/2018	RunNo: <b>126758</b> SeqNo: <b>3102308</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual

#### Qualifiers:

J

B Analyte detected in the associated Method Blank

ASSET LABORATORIES

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- Analyte detected below quantitation limits
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- S Spike/Surrogate outside of limits due to matrix interference
- Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

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## CLIENT: CH2MHill Work Order: N031531

Project: SFPP Norwalk

#### ANALYTICAL QC SUMMARY REPORT

TestCode: 200.8\_W\_SFPP

Sample ID: N031531-001C-MSD	SampType: <b>MSD</b>	TestCo	de: 200.8_W_	SFP Units: µg/L		Prep Da	te: 8/6/201	8	RunNo: 126	5758	
Client ID: ZZZZZZ	Batch ID: 70122	TestN	No: EPA 200.8			Analysis Da	te: 8/7/201	8	SeqNo: 310	2309	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	9.573	0.50	10.00	0	95.7	75	125	9.800	2.34	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits

ASSET LABORATORIES

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- S Spike/Surrogate outside of limits due to matrix interference
- E Value above quantitation range
- ND Not Detected at the Reporting Limit

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

 
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#### CLIENT: CH2MHill

Work Order:N031531Project:SFPP Norwalk

#### ANALYTICAL QC SUMMARY REPORT

TestCode: 245.1\_W\_LL

Sample ID: MB-70118	SampType: MBLK	TestCode: 245.1_W_LL Units: µg/L	Prep Date: 8/6/2018	RunNo: 126731
Client ID: PBW	Batch ID: 70118	TestNo: EPA 245.1	Analysis Date: 8/6/2018	SeqNo: 3101190
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Mercury	ND	0.050		
Sample ID: LCS-70118	SampType: LCS	TestCode: 245.1_W_LL Units: µg/L	Prep Date: 8/6/2018	RunNo: 126731
Client ID: LCSW	Batch ID: 70118	TestNo: EPA 245.1	Analysis Date: 8/6/2018	SeqNo: 3101191
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Mercury	2.707	0.050 2.500 0	108 85 115	
Sample ID: N031531-001C-MS	SampType: <b>MS</b>	TestCode: 245.1_W_LL Units: µg/L	Prep Date: 8/6/2018	RunNo: 126731
Client ID: ZZZZZZ	Batch ID: 70118	TestNo: EPA 245.1	Analysis Date: 8/6/2018	SeqNo: 3101192
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Mercury	2.477	0.050 2.500 0	99.1 75 125	
Sample ID: N031531-001C-MSD	SampType: <b>MSD</b>	TestCode: 245.1_W_LL Units: µg/L	Prep Date: 8/6/2018	RunNo: 126731
Client ID: ZZZZZZ	Batch ID: 70118	TestNo: EPA 245.1	Analysis Date: 8/6/2018	SeqNo: 3101193
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Mercury	2.510	0.050 2.500 0	100 75 125 2.477	1.33 20
Sample ID: N031531-001C-DUP	SampType: <b>DUP</b>	TestCode: 245.1_W_LL Units: µg/L	Prep Date: 8/6/2018	RunNo: <b>126731</b>
Client ID: ZZZZZZ	Batch ID: 70118	TestNo: EPA 245.1	Analysis Date: 8/6/2018	SeqNo: 3101195
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Mercury	ND	0.050	0	0 20

Qualifiers:

S

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits

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- ND Not Detected at the Reporting Limit
- Spike/Surrogate outside of limits due to matrix interference
  - Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

e to matrix interference Calculations are based on CALIFORNIA | P:562.219.7435 F:562.219.7436 NEVADA | P:702.

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## CLIENT: CH2MHill

Work Order:N031531Project:SFPP Norwalk

#### ANALYTICAL QC SUMMARY REPORT

TestCode: 8015\_W\_FP\_SFPP

Sample ID: MB-70124	SampType: MBLK	TestCode	e: 8015_W_F	P_ Units: ug/L		Prep Dat	te: 8/6/2018		RunNo: 126	6745	
Client ID: PBW	Batch ID: 70124	TestNo	o: EPA 8015E	B EPA 3510C		Analysis Da	te: 8/6/2018		SeqNo: 310	1482	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD	Ref Val	%RPD	RPDLimit	Qual
TPH-Diesel (C13-C22)	ND	25									
TPH-Oil (C23-C36)	ND	25									
Surr: Octacosane	59.238		80.00		74.0	26	152				
Surr: p-Terphenyl	56.159		80.00		70.2	57	132				

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits
- S Spike/Surrogate outside of limits due to matrix interference
- E Value above quantitation range
- ND Not Detected at the Reporting Limit

Calculations are based on raw values

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- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

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# CLIENT:CH2MHillWork Order:N031531Project:SFPP Norwalk

#### ANALYTICAL QC SUMMARY REPORT

TestCode: 8015\_W\_SFPPTOT

Sample ID: MB-R126745	SampType: MBLK	TestCod	le: 8015_W_S	FP Units: ug/L		Prep Da	te:		RunNo: 126	5745	
Client ID: PBW	Batch ID: R126745	TestN	lo: EPA 8015	В		Analysis Da	te: 8/6/201	8	SeqNo: 310	2162	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total TPH	32.000	50									J

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits
- S Spike/Surrogate outside of limits due to matrix interference
  - CALIFORMA IP:562.219.7435 F:562.219.7436 11110 Artesia Blvd., Ste B, Cerritos, CA 90703 ELAP Cert 2921 EPA ID CA01638

Е

ND Not Detected at the Reporting Limit

Calculations are based on raw values

Value above quantitation range

- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

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#### **CLIENT:** CH2MHill

Work Order: N031531

**Project:** SFPP Norwalk

#### ANALYTICAL QC SUMMARY REPORT

TestCode: 8015GAS\_WSFPP

Sample ID: E180806LCS	SampType: LCS	TestCo	de: 8015GAS	_WS Units: ug/L		Prep Da	te:		RunNo: 126	6739	
Client ID: LCSW	Batch ID: E18VW060	Test	No: EPA 8015	iВ		Analysis Da	te: 8/6/201	18	SeqNo: 310	01237	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12) Surr: Chlorobenzene - d5	877.000 47583.000	50	1000 50000	0	87.7 95.2	67 74	136 138				
Sample ID: E180806MB1	SampType: MBLK	TestCo	de: 8015GAS	_WS Units: ug/L		Prep Da	te:		RunNo: 126	6739	
Client ID: PBW	Batch ID: E18VW060	Test	No: EPA 8015	iВ		Analysis Da	te: 8/6/201	8	SeqNo: 310	)1238	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12) Surr: Chlorobenzene - d5	32.000 55138.000	50	50000		110	74	138				J
Sample ID: N031531-001AMS	SampType: <b>MS</b>	TestCo	de: 8015GAS	_WS Units: ug/L		Prep Da	te:		RunNo: 126	6739	
Sample ID: N031531-001AMS Client ID: ZZZZZZ	SampType: <b>MS</b> Batch ID: <b>E18VW060</b>		de: 8015GAS No: EPA 8015	- 0		Prep Da Analysis Da		18	RunNo: 126 SeqNo: 310		
			No: EPA 8015	- 0	%REC	Analysis Da	te: 8/6/201	18 RPD Ref Val			Qual
Client ID: ZZZZZZ	Batch ID: E18VW060	Test	No: EPA 8015	iВ	%REC 79.9 97.9	Analysis Da	te: 8/6/201		SeqNo: 310	01241	Qual
Client ID: ZZZZZZ Analyte TPH-Gasoline (C4-C12)	Batch ID: E18VW060 Result 826.000	Testl PQL 50	No: EPA 8015 SPK value 1000 50000	SPK Ref Val	79.9	Analysis Da LowLimit 67	te: <b>8/6/20</b> HighLimit 136 138		SeqNo: 310	01241 RPDLimit	Qual
Client ID: ZZZZZZ Analyte TPH-Gasoline (C4-C12) Surr: Chlorobenzene - d5	Batch ID: E18VW060 Result 826.000 48927.000	Testi PQL 50 TestCo	No: EPA 8015 SPK value 1000 50000	B SPK Ref Val 27.00	79.9 97.9	Analysis Da LowLimit 67 74	te: <b>8/6/20</b> 4 HighLimit 136 138 te:	RPD Ref Val	SeqNo: 310 %RPD	01241 RPDLimit	Qual
Client ID: ZZZZZZ Analyte TPH-Gasoline (C4-C12) Surr: Chlorobenzene - d5 Sample ID: N031531-001AMSD	Batch ID: <b>E18VW060</b> Result 826.000 48927.000 SampType: <b>MSD</b>	Testi PQL 50 TestCo	No: EPA 8015 SPK value 1000 50000 de: 8015GAS	B SPK Ref Val 27.00	79.9 97.9	Analysis Da LowLimit 67 74 Prep Da Analysis Da	te: 8/6/20 HighLimit 136 138 te: te: 8/6/20	RPD Ref Val	SeqNo: 310 %RPD RunNo: 126	01241 RPDLimit	Qual

Qualifiers:

- В Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits

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- S Spike/Surrogate outside of limits due to matrix interference
- Е Value above quantitation range
- ND Not Detected at the Reporting Limit

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

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#### CLIENT: CH2MHill

Work Order:N031531Project:SFPP Norwalk

#### ANALYTICAL QC SUMMARY REPORT

#### TestCode: 8260\_WP\_SFPP

Sample ID: R180804LCS	SampType: LCS	TestCo	de: 8260_WP_	_SF Units: ug/L		Prep Dat	e:		RunNo: 126	6712	
Client ID: LCSW	Batch ID: R18VW060	Test	No: EPA 8260	В		Analysis Dat	e: 8/4/201	8	SeqNo: 309	9842	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	16.690	0.50	20.00	0	83.4	69	133				
1,2-Dichloroethane	18.320	0.50	20.00	0	91.6	69	132				
Benzene	17.980	1.0	20.00	0	89.9	81	122				
Ethylbenzene	18.880	1.0	20.00	0	94.4	73	127				
m,p-Xylene	38.650	1.0	40.00	0	96.6	76	128				
МТВЕ	17.600	1.0	20.00	0	88.0	65	123				
o-Xylene	18.930	1.0	20.00	0	94.6	80	121				
Tert-Butanol	85.020	5.0	100.0	0	85.0	70	130				
Toluene	18.210	2.0	20.00	0	91.1	77	122				
Xylenes, Total	57.580	2.0	60.00	0	96.0	75	125				
Surr: 1,2-Dichloroethane-d4	23.050		25.00		92.2	72	119				
Surr: 4-Bromofluorobenzene	25.570		25.00		102	76	119				
Surr: Dibromofluoromethane	23.860		25.00		95.4	85	115				
	23.000		25.00		95.4	00	115				
Surr: Toluene-d8	24.540		25.00		95.4 98.2	85	120				
		TestCo	25.00	_ <b>SF</b> Units: <b>ug/L</b>			120		RunNo: <b>126</b>	5712	
Surr: Toluene-d8	24.540		25.00		98.2	81	120 re:	18	RunNo: <b>126</b> SeqNo: <b>30</b> 9		
Surr: Toluene-d8 Sample ID: N031531-001AMS Client ID: ZZZZZZ	24.540 SampType: <b>MS</b>		25.00 de: 8260_WP No: EPA 8260		98.2	81 Prep Dat Analysis Dat	120 re: re: <b>8/4/201</b>	8 RPD Ref Val			Qual
Surr: Toluene-d8 Sample ID: N031531-001AMS Client ID: ZZZZZ Analyte	24.540 SampType: <b>MS</b> Batch ID: <b>R18VW060</b>	Test	25.00 de: 8260_WP No: EPA 8260	В	98.2	81 Prep Dat Analysis Dat	120 re: re: <b>8/4/201</b>		SeqNo: <b>309</b>	9843	Qual
Surr: Toluene-d8 Sample ID: N031531-001AMS Client ID: ZZZZZ Analyte 1,1-Dichloroethane	24.540 SampType: <b>MS</b> Batch ID: <b>R18VW060</b> Result	TestN PQL	25.00 de: <b>8260_WP</b> No: <b>EPA 8260</b> SPK value	B SPK Ref Val	98.2 %REC	81 Prep Dat Analysis Dat LowLimit	120 re: re: <b>8/4/201</b> HighLimit		SeqNo: <b>309</b>	9843	Qual
Surr: Toluene-d8 Sample ID: N031531-001AMS Client ID: ZZZZZZ Analyte 1,1-Dichloroethane 1,2-Dichloroethane	24.540 SampType: <b>MS</b> Batch ID: <b>R18VW060</b> Result 18.930	TestM PQL 0.50	25.00 de: <b>8260_WP</b> No: <b>EPA 8260</b> SPK value 20.00	B SPK Ref Val	98.2 %REC 94.6	81 Prep Dat Analysis Dat LowLimit 69	120 e: e: <b>8/4/201</b> HighLimit 133		SeqNo: <b>309</b>	9843	Qual
Surr: Toluene-d8 Sample ID: N031531-001AMS Client ID: ZZZZZ Analyte 1,1-Dichloroethane 1,2-Dichloroethane Benzene	24.540 SampType: <b>MS</b> Batch ID: <b>R18VW060</b> Result 18.930 20.560	TestM PQL 0.50 0.50	25.00 de: <b>8260_WP</b> No: <b>EPA 8260</b> SPK value 20.00 20.00	B SPK Ref Val 0 0	98.2 %REC 94.6 103	81 Prep Dat Analysis Dat LowLimit 69 69	120 re: re: <b>8/4/201</b> HighLimit 133 132		SeqNo: <b>309</b>	9843	Qual
Surr: Toluene-d8 Sample ID: N031531-001AMS Client ID: ZZZZZ Analyte 1,1-Dichloroethane 1,2-Dichloroethane Benzene Ethylbenzene	24.540 SampType: <b>MS</b> Batch ID: <b>R18VW060</b> Result 18.930 20.560 20.230	Testh PQL 0.50 0.50 1.0	25.00 de: <b>8260_WP</b> No: <b>EPA 8260</b> SPK value 20.00 20.00 20.00	B SPK Ref Val 0 0 0	98.2 %REC 94.6 103 101	81 Prep Dat Analysis Dat LowLimit 69 69 81	120 e: <b>8/4/201</b> HighLimit 133 132 122		SeqNo: <b>309</b>	9843	Qual
Surr: Toluene-d8 Sample ID: N031531-001AMS Client ID: ZZZZZ Analyte 1,1-Dichloroethane 1,2-Dichloroethane Benzene Ethylbenzene m,p-Xylene	24.540 SampType: MS Batch ID: R18VW060 Result 18.930 20.560 20.230 20.930	Testh PQL 0.50 0.50 1.0 1.0	25.00 de: <b>8260_WP</b> No: <b>EPA 8260</b> SPK value 20.00 20.00 20.00 20.00	B SPK Ref Val 0 0 0 0	98.2 %REC 94.6 103 101 105	81 Prep Dat Analysis Dat LowLimit 69 69 81 73	120 re: e: <b>8/4/201</b> HighLimit 133 132 122 127		SeqNo: <b>309</b>	9843	Qual
Surr: Toluene-d8 Sample ID: N031531-001AMS Client ID: ZZZZZ Analyte 1,1-Dichloroethane 1,2-Dichloroethane Benzene Ethylbenzene m,p-Xylene MTBE	24.540 SampType: MS Batch ID: R18VW060 Result 18.930 20.560 20.230 20.930 42.650	Testh PQL 0.50 0.50 1.0 1.0 1.0	25.00 de: 8260_WP No: EPA 8260 SPK value 20.00 20.00 20.00 20.00 40.00	B SPK Ref Val 0 0 0 0 0	98.2 %REC 94.6 103 101 105 107	81 Prep Dat Analysis Dat LowLimit 69 69 81 73 76	120 re: HighLimit 133 132 122 127 128		SeqNo: <b>309</b>	9843	Qual
Surr: Toluene-d8 Sample ID: N031531-001AMS	24.540 SampType: MS Batch ID: R18VW060 Result 18.930 20.560 20.230 20.930 42.650 19.980	TestM PQL 0.50 0.50 1.0 1.0 1.0 1.0	25.00 de: 8260_WP No: EPA 8260 SPK value 20.00 20.00 20.00 20.00 40.00 20.00	B SPK Ref Val 0 0 0 0 0 0 0	98.2 %REC 94.6 103 101 105 107 99.9	81 Prep Dat Analysis Dat LowLimit 69 69 81 73 76 65	120 ee: <b>8/4/201</b> HighLimit 133 132 122 127 128 123		SeqNo: <b>309</b>	9843	Qual
Surr: Toluene-d8 Sample ID: N031531-001AMS Client ID: ZZZZZZ Analyte 1,1-Dichloroethane 1,2-Dichloroethane Benzene Ethylbenzene m,p-Xylene MTBE o-Xylene	24.540 SampType: MS Batch ID: R18VW060 Result 18.930 20.560 20.230 20.930 42.650 19.980 21.110	TestM PQL 0.50 0.50 1.0 1.0 1.0 1.0 1.0 1.0	25.00 de: 8260_WP No: EPA 8260 SPK value 20.00 20.00 20.00 40.00 20.00 20.00 20.00	B SPK Ref Val 0 0 0 0 0 0 0 0 0	98.2 %REC 94.6 103 101 105 107 99.9 106	81 Prep Dat Analysis Dat LowLimit 69 69 81 73 76 65 80	120 ee: <b>8/4/201</b> HighLimit 133 132 122 127 128 123 121		SeqNo: <b>309</b>	9843	Qual
Surr: Toluene-d8 Sample ID: N031531-001AMS Client ID: ZZZZZZ Analyte 1,1-Dichloroethane 1,2-Dichloroethane Benzene Ethylbenzene m,p-Xylene MTBE o-Xylene Tert-Butanol	24.540 SampType: MS Batch ID: R18VW060 Result 18.930 20.560 20.230 20.930 42.650 19.980 21.110 97.740	TestM PQL 0.50 0.50 1.0 1.0 1.0 1.0 1.0 5.0	25.00 de: 8260_WP No: EPA 8260 SPK value 20.00 20.00 20.00 40.00 20.00 20.00 100.0	B SPK Ref Val 0 0 0 0 0 0 0 0 0 0 0 0 0	98.2 %REC 94.6 103 101 105 107 99.9 106 97.7	81 Prep Dat Analysis Dat LowLimit 69 69 81 73 76 65 80 70	120 ee: <b>8/4/201</b> HighLimit 133 132 122 127 128 123 121 130		SeqNo: <b>309</b>	9843	Qual

#### Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits

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- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- S Spike/Surrogate outside of limits due to matrix interference
- Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

Spike/Surrogate outside of limits due to matrix interference

CALIFORNIA P:562.219.7435 F:562.219.7436 1110 Artesia Blvd., Ste B, Cerritos, CA 90703 ELAP Cert 2921 EPA ID CA01638 <u>NEVADA</u> | P:702.307.2659 F:702.307.2691 3151 W. Post Rd., Las Vegas, NV 89118 ELAP Cert 2676 | NV Cert NV00922 ORELAP/NELAP Cert 4046

#### **CLIENT:** CH2MHill

Work Order: N031531 **Project:** SFPP Norwalk

#### ANALYTICAL QC SUMMARY REPORT

#### TestCode: 8260\_WP\_SFPP

Sample ID: N031531-001AMS Client ID: ZZZZZZ	SampType: <b>MS</b> Batch ID: <b>R18VW060</b>		de: 8260_WP No: EPA 8260	_ <b>SF</b> Units: <b>ug/L</b>		Prep Da			RunNo: <b>126712</b>			
		Testi	NO: EPA 8260	Б		Analysis Da	le: 8/4/201	SeqNo: <b>3099843</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Surr: 4-Bromofluorobenzene	25.010		25.00		100	76	119					
Surr: Dibromofluoromethane	24.150		25.00		96.6	85	115					
Surr: Toluene-d8	24.160		25.00		96.6	81	120					
Sample ID: N031531-001AMSD	SampType: <b>MSD</b>	TestCo	de: 8260_WP	_SF Units: ug/L		Prep Da	te:	RunNo: 12	RunNo: 126712			
Client ID: ZZZZZZ	Batch ID: R18VW060	Test	No: EPA 8260	В		Analysis Da	te: 8/4/201	18	SeqNo: 3099844			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethane	19.310	0.50	20.00	0	96.6	69	133	18.93	1.99	20		
1,2-Dichloroethane	20.270	0.50	20.00	0	101	69	132	20.56	1.42	20		
Benzene	20.530	1.0	20.00	0	103	81	122	20.23	1.47	20		
Ethylbenzene	21.160	1.0	20.00	0	106	73	127	20.93	1.09	20		
m,p-Xylene	41.880	1.0	40.00	0	105	76	128	42.65	1.82	20		
MTBE	20.390	1.0	20.00	0	102	65	123	19.98	2.03	20		
o-Xylene	20.950	1.0	20.00	0	105	80	121	21.11	0.761	20		
Tert-Butanol	97.720	5.0	100.0	0	97.7	70	130	97.74	0.0205	20		
Toluene	20.730	2.0	20.00	0	104	77	122	20.66	0.338	20		
Xylenes, Total	62.830	2.0	60.00	0	105	75	125	63.76	1.47	20		
Surr: 1,2-Dichloroethane-d4	23.830		25.00		95.3	72	119		0			
Surr: 4-Bromofluorobenzene	25.040		25.00		100	76	119		0			
Surr: Dibromofluoromethane	24.760		25.00		99.0	85	115		0			
Surr: Toluene-d8	24.520		25.00		98.1	81	120		0			
Sample ID: R180804MB3	SampType: MBLK	TestCo	de: 8260_WP	_SF Units: ug/L		Prep Da	te:		RunNo: 12	6712		
Client ID: PBW	Batch ID: R18VW060	Test	lo: EPA 8260	В		Analysis Da	te: 8/4/201	8	SeqNo: 309	99847		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethane	ND	0.50										
1,2-Dichloroethane	ND	0.50										
Benzene	ND	1.0										

#### Qualifiers:

- В Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits
- Е Value above quantitation range
- ND Not Detected at the Reporting Limit
- S Spike/Surrogate outside of limits due to matrix interference
- Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

- - CALIFORNIA P:562.219.7435 F:562.219.7436 NEVADA | P:702.307.2659 F:702.307.2691 3151 W. Post Rd., Las Vegas, NV 89118 ELAP Cert 2676 | NV Cert NV00922 ORELAP/NELAP Cert 4046 11110 Artesia Blvd., Ste B, Cerritos, CA 90703 ELAP Cert 2921

EPA ID CA01638

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#### CLIENT: CH2MHill

Work Order:N031531Project:SFPP Norwalk

#### ANALYTICAL QC SUMMARY REPORT

TestCode: 8260\_WP\_SFPP

Sample ID: R180804MB3	SampType: <b>MBLK</b>	TestCo	de: 8260_WP	_SF Units: ug/L		Prep Da	ite:		RunNo: 126712				
Client ID: PBW	Batch ID: R18VW060	Test	No: EPA 8260	В		Analysis Da	ite: 8/4/201	18	SeqNo: 3099847				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Ethylbenzene	ND	1.0											
m,p-Xylene	ND	1.0											
МТВЕ	ND	1.0											
o-Xylene	ND	1.0											
Tert-Butanol	ND	5.0											
Toluene	ND	2.0											
Xylenes, Total	ND	2.0											
Surr: 1,2-Dichloroethane-d4	24.860		25.00		99.4	72	119						
Surr: 4-Bromofluorobenzene	24.670		25.00		98.7	76	119						
Surr: Dibromofluoromethane	25.720		25.00		103	85	115						
Surr: Toluene-d8	24.800		25.00		99.2	81	120						

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits
- S Spike/Surrogate outside of limits due to matrix interference
- E Value above quantitation range

CALIFORNIA P:562.219.7435 F:562.219.7436

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EPA ID CA01638

ND Not Detected at the Reporting Limit

Calculations are based on raw values

- Is are based on raw values <u>NEVADA</u>|P:702.307.2659 F:702.307.2691 3151 W. Post Rd., Las Vegas, NV 89118 ELAP Cert 2676 | NV Cert NV00922 ORELAP/NELAP Cert 4046
- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

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#### Asset Laboratories 3151 W. Post Road Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691 Marlon Cartin (marlon@assetlaboratories.com)

CHAIN OF CUSTOD RECORD DATE: PAGE:

Section A Section B Required Clent Information; Required Project Information;					Section C											Section D Sempler information:												
Company:	Kinder Morgen Energy Partner	Energy Partners Report To: Eric Davis						Attention: Steve Defibaugh - Ref. AFE# 81195											Sampler James Dye									
ddress:	Attention: Steve Defilieugh 1100 Town & Country Road		Copy To:	Store	Defibau	ugh														Name:								
uureas:	Orange, CA 92868							Company Name:	ÿ	King	er Mor	gari crit	ergy Hai	rtners							Sample Signatu							
mali To:	o: steve defibaugh@kindermorgan.com Purchase Order No.:						Address:				& Cour	itry Roa	ad						s	Sample		8	3/18	/				
eric.davis@rh2m_com /hone; 714-560-4802 Fax: 714-560-4801 Project Name: SFPP Norwalk						ATL Proje	est		ige, CA Ion Carl									P	Date:		/¥L	3/10						
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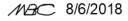
Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	8/3/2018				Workorder:	N031531		
Rep sample Temp (Deg C):	4.2				IR Gun ID:	2		
Temp Blank:	✓ Yes	🗌 No						
Carrier name:	Golden St	tate Overnight						
Last 4 digits of Tracking No .:	1255			Packing	Material Used:	Bubble Wrap		
Cooling process:	✓ Ice	Ice Pack	Dry Ice	Other	None			
		S	ample Recei	ot Checklist				
1. Shipping container/cooler in g	good conditio				Yes 🗹	No 🗌	Not Present	
2. Custody seals intact, signed,	dated on sh	ippping container/		Yes	No 🗌	Not Present		
3. Custody seals intact on samp	le bottles?			Yes	No 🗌	Not Present		
4. Chain of custody present?				Yes 🗹	No 🗌			
5. Sampler's name present in C	OC?			Yes 🗹	No 🗌			
6. Chain of custody signed whe	n relinquishe	ed and received?		Yes 🗹	No 🗌			
7. Chain of custody agrees with	sample labe	els?		Yes 🗹	No 🗌			
8. Samples in proper container/l	oottle?				Yes 🗹	No 🗌		
9. Sample containers intact?					Yes 🗹	No 🗌		
10. Sufficient sample volume for	r indicated te	est?			Yes 🗹	No 🗌		
11. All samples received within	holding time	?			Yes 🗹	No 🗌		
12. Temperature of rep sample	or Temp Bla	ank within acceptal	ble limit?		Yes 🗹	No 🗌	NA	
13. Water - VOA vials have zero	o headspace	?		Yes 🗹	No 🗌	NA		
14. Water - pH acceptable upor Example: pH > 12 for (CN	•	or Metals			Yes 🗹	No 🗌	NA	
15. Did the bottle labels indicate	correct pres	servatives used?			Yes 🗹	No 🗌	NA	
16. Were there Non-Conforman W	ce issues at as Client no	-			Yes 🗌 Yes 🔲	No 🗌 No 🔲	NA NA	<ul><li>✓</li><li>✓</li></ul>
Comments:								

For: YD 8/6/2018 FR

Checklist Completed By:



WORK O	RDER Summar	v				06-Aug-18				
Client ID:	CH2HI03	•				WorkOrde	er: N	0315	531	
Project:	SFPP Norwalk		OC Leve	I: RTNE		Date Receive	ed: 8/3	3/20 <sup>,</sup>	18	
Comments:		nd VOC preliminary data	e							
Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld N	1S S	Sub	Storage
N031531-001A	EFF-08-03	8/3/2018 12:50:00 PM	8/6/2018	Wastewater	EPA 8015B	GASOLINE RANGE ORGANICS BY GC/FID				VW
			8/6/2018		EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS			<u> </u>	VW
N031531-001B			8/6/2018		EPA 3510C	SEPARATORY FUNNEL EXTRACTION: EXTRACTABLE FUELS		✓		WW
			8/6/2018		EPA 8015B	TPH EXTRACTABLE BY GC/FID		✓		WW
			8/6/2018		EPA 8015B	Total TPH		✓		WW
N031531-001C			8/6/2018			AQPREP TOTAL METALS: ICP, FLAA				WW
			8/6/2018		EPA 200.8	TOTAL METALS BY ICPMS				WW
			8/6/2018		EPA 245.1	MERCURY BY COLD VAPOR TECHNIQUE				WW
			8/6/2018			MERCURY PREP				WW
N031531-001D			8/10/2018		EPA 3510C	SEPARATORY FUNNEL EXTRACTION: 8270C - SIM				WW
			8/10/2018		EPA 8270C	SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS				WW
N031531-002A	FOLDER	8/6/2018	8/6/2018		Folder	Folder				LAB
			8/6/2018		Folder	Folder				LAB

Page 1 of 1



Ship From ASSET LABORATORIES MOLKY BRAR 11110 ARTESIA BLVD. SUITE B CERRITOS, CA 90703

Ship To ASSET LABORATORIES MARLON CARTIN 3151 W. POST RD., LAS VEGAS, CA 89118

COD: \$0.00 Weight: 0 lb(s) Reference:

Delivery Instructions: HOLD FOR PICKUP Signature Type: NOT REQUIRED



88434455

Print Date: 8/3/2018 5:25 PM

Package 3 of 3

#### LABEL INSTRUCTIONS:

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.** Step 1: Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer. Step 2: Fold this page in half.

Step 3: Securely attach this label to your package and do not cover the barcode.

#### **TERMS AND CONDITIONS:**

By giving us your shipment to deliver, you agree to all of the GSO service terms & conditions including, but not limited to; limits of liability, declared value conditions, and claim procedures which are available on our website at www.gso.com.

112 H 2 4.2°C

## **CLIENT CORRESPONDENCE LOG**

**Client Name:** -CH2HI03

ATL Workorder No.: N03153

DATE	CONTACT	CALL IN/OUT	ISSUE / PROBLEM	COMMENTS/CORRECTIVE ACTION	INITIAL
8/15/2018 10	0:08:44 V. Carino		Vladimir was contacted on Friday the 10th about the power outage and sample for Phenols cannot be extracted within the hold time period.	Vladimir agreed to hold the current sample and they will just re-collect sample for Phenols the week of 8/13.	marlonc

 CALIFORNIA
 P:562.219.7435
 F:562.219.7436

 11110 Artesia Blvd., Ste B, Cerritos, CA 90703
 BLAP Cert 2921
 3151 W. Post Rd., Las Vegas, NV 89118

 ELAP Cert 2921
 ELAP Cert 2921
 Cert 2076
 NV 600922

 EPA ID CA01638
 ORELAP/NELAP Cert 4046
 ORELAP/NELAP Cert 4046

1 of 1

August 24, 2018

Eric Davis CH2MHill 1000 Wilshire Blvd. Los Angeles, CA 90017 TEL: FAX:

Workorder No.: N031731

RE: SFPP Norwalk

Attention: Eric Davis

Enclosed are the results for sample(s) received on August 16, 2018 by ASSET Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

man umm

Quennie Manimtim Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories - Las Vegas.



 CALIFORNIA
 P:562.219.7435
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CLIENT:	CH2MHill
Project:	SFPP Norwalk
Lab Order:	N031731

## CASE NARRATIVE

## SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Sample was analyzed within method holding time.

Results were J-Flag. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" Flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Analytical Comments for EPA 8270CSIM:

RPD for Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) is outside criteria. Analyte recovery on both met acceptance criteria.

Surrogate recovery was above the laboratory acceptable limit in Laboratory Control Sample Duplicate (LCSD). Sample results were non-detect (ND) for analytes of interest therefore reanalysis of the sample was not necessary.



CLIENT: Project: Lab Order: Contract No:	CH2MHill SFPP Norwalk N031731		Work C	Order Sampl	e Summary
Lab Sample ID	Client Sample ID	Matrix	<b>Collection Date</b>	Date Received	Date Reported
N031731-001A	EFF-08-16	Wastewater	8/16/2018 8:00:00 AM	8/16/2018	8/24/2018



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Surr: Phenol-d5

## **ANALYTICAL RESULTS**

Print Date: 24-Aug-18

1

8/23/2018 03:39 AM

CLIENT:	CH2MHill		Client Sample ID: EFF-08-16					
Lab Order:	N031731				Collection 1	Date: 8/	16/2018 8:00:	00 AM
Project:	SFPP Norwalk				Ma	atrix: W	ASTEWATE	R
Lab ID:	N031731-001							
				DOL	0.1	TT . • 4	DE	Date Analyzed
Analyses		Result		PQL	Qual	Units	DF	Date Analyzeu
	LE ORGANIC COMF				Qual A 8270C	Units	DF	
SEMIVOLATI		POUNDS BY GO EPA 3510C					8/22/2018	Analyst: JJS
SEMIVOLATI	I	POUNDS BY GO EPA 3510C	c/MS 0335		A 8270C PrepDa			
SEMIVOLATI RunID: NV00 Phenol	I	POUNDS BY GO EPA 3510C QC Batch: 7	<b>0335</b> 0.34	EPA	A 8270C PrepDa	ate:		Analyst: JJS
SEMIVOLATI RunID: NV00 Phenol Surr: 1,2-E	I 922-MS3_180822B	POUNDS BY GO EPA 3510C QC Batch: 7 ND	6/ <b>MS</b> 0335 0.34 0	EP4	A 8270C PrepDa	ate: µg/L		Analyst: <b>JJS</b> 8/23/2018 03:39 AM

15-120

%REC

28.0

0

**Qualifiers:** 

- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit Results are wet unless otherwise specified

- Е Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out



В

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**CLIENT:** CH2MHill Work Order: N031731

SFPP Norwalk **Project:** 

## ANALYTICAL QC SUMMARY REPORT

#### TestCode: 8270WATER\_SIMEXT

Sample ID: LCS-70335	SampType: LCS	TestCode: 8270WATER_ Units: µg/L	Prep Date: 8/22/2018	RunNo: 127130
Client ID: LCSW	Batch ID: 70335	TestNo: EPA 8270C EPA 3510C	Analysis Date: 8/23/2018	SeqNo: 3118767
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Phenol	1.590	1.0 6.000 0	26.5 24 120	
Surr: 1,2-Dichlorobenzene-d4	0.530	1.000	53.0 16 120	
Surr: 2-Fluorobiphenyl	0.580	1.000	58.0 25 120	
Surr: 4-Terphenyl-d14	0.860	1.000	86.0 46 132	
Surr: Phenol-d5	0.170	1.000	17.0 15 120	
Sample ID: LCSD-70335	SampType: LCSD	TestCode: 8270WATER_ Units: µg/L	Prep Date: 8/22/2018	RunNo: 127130
Client ID: LCSS02	Batch ID: 70335	TestNo: EPA 8270C EPA 3510C	Analysis Date: 8/23/2018	SeqNo: 3118768
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qua
Phenol	2.760	1.0 6.000 0	46.0 24 120 1.590	53.8 20 R
Surr: 1,2-Dichlorobenzene-d4	0.680	1.000	68.0 16 120	0
Surr: 2-Fluorobiphenyl	0.980	1.000	98.0 25 120	0
Surr: 4-Terphenyl-d14	1.410	1.000	141 46 132	0 S
Surr: Phenol-d5	0.290	1.000	29.0 15 120	0
Sample ID: MB-70335	SampType: MBLK	TestCode: 8270WATER_ Units: µg/L	Prep Date: 8/22/2018	RunNo: 127130
Client ID: PBW	Batch ID: 70335	TestNo: EPA 8270C EPA 3510C	Analysis Date: 8/23/2018	SeqNo: 3118769
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qua
Phenol	ND	1.0		
Surr: 1,2-Dichlorobenzene-d4	0.500	1.000	50.0 16 120	
Surr: 2-Fluorobiphenyl	0.650	1.000	65.0 25 120	
Surr: 4-Terphenyl-d14	0.990	1.000	99.0 46 132	
Surr: Phenol-d5	0.210	1.000	21.0 15 120	

#### Qualifiers:

- В Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits

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- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- S Spike/Surrogate outside of limits due to matrix interference
- Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

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5 of 5

#### Asset Laboratories CHAIN OF CUSTODY RECORD 3151 W. Post Road Las Vegas, NV 89118 8/16/18 DATE: Tel: 702-307-2659 Fax: 702-307-2691 PAGE: Marion Cartin (marion@assetlaboratories.com) Section A Section B Section C Section D Required Client Information: Required Project information Invoice Information Sampler information: Company: Kinder Morgan Energy Partners Eric Davis Report To: ttention: Steve Defibaugh - Ref. AFE# 81195 Sampler James Dve Attention: Steve Defibaugh Address: 1100 Town & Country Road lame: Copy To: Steve Defibaugh Company Kinder Morgan Energy Partners Orange, CA 92868 ample lame: Signature Email To: steve defibaugh@kindermorgan.com Purchase Order No.: ddress: 1100 Town & Country Road 8/16/18 iample eric.davis@ch2m.com Phone: 714-560-4802 Fax: 714-560-4801 Orange, CA 92868 Marlon Cartin ate: Project Name: SFPP Norwalk ATL Project Aanager: Section E CONTAINER TYPE ٧ VAPA equired Sample Information . # OF CONTAINERS 3 3 2 1 2 H - N н -PRESERVATIVE 40 40 1000 500 1000 VOLUME (mL) SAMPLING 650 \$797 (G=GRAB C=COMP) TBA (PH-d, TPH-oil, Total TPH (80158) SAMPLE (D LOCATION/ DESCRIPTION MTBE, lu, Pb, Zn (200.8); Hg (245.1) OTAL # OF CONTAINERS 3TDC 1,1-DCA, 1,2-DCA TPH-gas (8015B) SAMPLE TYPE 1 <sup>hierrol</sup> (8270) MATRIX TEMI DATE TIME Comments EFF. 08. 16 1 EFFLUENT 8/10 0800 ww G х N031731-01 2 Report metals, TPH and VOC preliminary data on 24-hr TAT з Report total Xylenes 4 5 5 7 8 9 10 11 12 Relinquished by (Sign Date / Time Furn Around Time (TAT): Special Instruction: A = Same Day 18 4:11 PM 8/16/18 0810 C B = 24 Hours C = 48 Hours 14/18 4:35PM 29 8/17/18 2- 0800 E = 5 Workdays D = 72 Hours E = 10 Workdays TAT Starts at 8 AM the following day if samples received after 3:00 PM. Matrix: Preservatives: Container Type: W = Water WW = Wastewater H = HCl N = HNO3 S = H2SO4 = Tube V = VOA P = Pint A = Amber 0 = OI P = Product S = Soil Z = Zn(AC)2O = NaQH T = Na2S2O3 = Jar B = Tedlar G = Glass

Others/Specify:

Others/Specify:

M = Metal

P = Plastic

C = Can

NO31731

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	8/16/2018	3			Workorder:	N031731		
Rep sample Temp (Deg C):	3.8				IR Gun ID:	2		
Temp Blank:	Yes	🗌 No						
Carrier name:	Golden St	tate Overnight						
Last 4 digits of Tracking No .:	4797			Packing	Material Used:	Bubble Wrap		
Cooling process:	✓ Ice	Ice Pack	Dry Ice	Other	None None			
		Si	ample Receir	ot Checklist				
1. Shipping container/cooler in g	jood conditic				Yes 🗹	No 🗌	Not Present	
2. Custody seals intact, signed,	dated on sh	ippping container/	cooler?		Yes 🗌	No 🗌	Not Present	✓
3. Custody seals intact on samp	le bottles?				Yes 🗌	No 🗌	Not Present	$\checkmark$
4. Chain of custody present?					Yes 🗹	No 🗌		
5. Sampler's name present in Co	OC?				Yes 🗹	No 🗌		
6. Chain of custody signed wher	n relinquishe	ed and received?			Yes 🗹	No 🗌		
7. Chain of custody agrees with	sample labe	els?			Yes 🗹	No 🗌		
8. Samples in proper container/b	oottle?				Yes 🗹	No 🗌		
9. Sample containers intact?					Yes 🗹	No 🗌		
10. Sufficient sample volume for	r indicated te	est?			Yes 🗹	No 🗌		
11. All samples received within h	nolding time	?			Yes 🗹	No 🗌		
12. Temperature of rep sample of	or Temp Bla	ank within acceptal	ole limit?		Yes 🗹	No 🗌	NA	
13. Water - VOA vials have zero	headspace	?			Yes 🗌	No 🗌	NA	$\checkmark$
14. Water - pH acceptable upon Example: pH > 12 for (CN	•	or Metals			Yes 🗌	No 🗌	NA	
15. Did the bottle labels indicate	correct pres	servatives used?			Yes 🗌	No 🗌	NA	$\checkmark$
16. Were there Non-Conformano Wa	ce issues at as Client no	-			Yes 🗌 Yes 🗍	No 🗌 No	NA NA	<ul><li></li><li></li></ul>
Comments:								

1 08/22/18

Reviewed By:

Comments:

For: SKT 8/20/2018 MBC

Checklist Completed By:

WORK (	ORDER Summary					20-Aug-18	
Client ID: Project: Comments:	CH2HI03 SFPP Norwalk		QC Leve	I: RTNE			er: N031731 ed: 8/16/2018
Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld MS Sub Storage
N031731-001A	EFF-08-16	8/16/2018 8:00:00 AM	8/23/2018	Wastewater	EPA 3510C	SEPARATORY FUNNEL EXTRACTION: 8270C - SIM	U U WW
			8/23/2018		EPA 8270C	SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS	ww
N031731-002A	FOLDER	8/23/2018	8/23/2018		Folder	Folder	
			8/23/2018		Folder	Folder	



#### Ship From ASSET LABORATORIES MOLKY BRAR 11110 ARTESIA BLVD. SUITE B CERRITOS, CA 90703

Ship To ASSET LABORATORIES MARLON CARTIN 3151 W. POST RD., LAS VEGAS, NV 89118

COD: \$0.00 Weight: 0 lb(s) Reference:

**Delivery Instructions:** HOLD FOR PICK-UP **Signature Type:** NOT REQUIRED



800-322-5555



Print Date: 8/16/2018 5:19 PM

#### LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

Step 1: Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer.

Step 2: Fold this page in half.

Step 3: Securely attach this label to your package and do not cover the barcode.

## **TERMS AND CONDITIONS:**

By giving us your shipment to deliver, you agree to all of the GSO service terms & conditions including, but not limited to; limits of liability, declared value conditions, and claim procedures which are available on our website at www.gso.com.

September 17, 2018

Eric Davis
CH2MHill
1000 Wilshire Blvd.
Los Angeles, CA 90017
TEL:
FAX:

Workorder No.: N032002

RE: SFPP Norwalk

Attention: Eric Davis

Enclosed are the results for sample(s) received on September 07, 2018 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

"ann mmm

Quennie Manimtim Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories - Las Vegas.



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CLIENT:CH2MHillProject:SFPP NorwalkLab Order:N032002

## CASE NARRATIVE

## SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Sample was analyzed within method holding time.

Results were J-Flag. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" Flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Analytical Comment for EPA 200.8:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for Copper possibly due to matrix interference. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comment for EPA 8015B\_DRO/ORO:

Method Blank has hit above the reporting limit for ORO. Sample results were non-detect (ND) for analytes of interest therefore reanalysis of the sample was not necessary.

Analytical Comment for EPA 8015B\_GRO:

Surrogate recovery biased high in N032002-001 and Method Blank (MB) possibly due to matrix interferences. Sample results were non-detect (ND) for analytes of interest therefore reanalysis of the sample was not necessary.

Analytical Comment for EPA 8270C\_SIM\_Phenol:

Surrogate 4-Terphenyl-d14 recovery biased high in Method Blank (MB), Matrix Spike (MS), Matrix Spike Duplicate (MSD) and N032002-001. Sample results were non-detect (ND) for analytes of interest

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CLIENT:	CH2MHill	
Project:	SFPP Norwalk	CASE NARRATIVE
Lab Order:	N032002	

therefore reanalysis of the sample was not necessary.

CLIENT:CH2MHillProject:SFPP NorwalkLab Order:N032002

## **Contract No:**

## Work Order Sample Summary

Lab Sample ID Client Sample ID	Matrix	<b>Collection Date</b>	Date Received	Date Reported
N032002-001A EFF-09-07	Wastewater	9/7/2018 1:15:00 PM	9/7/2018	9/17/2018
N032002-001B EFF-09-07	Wastewater	9/7/2018 1:15:00 PM	9/7/2018	9/17/2018
N032002-001C EFF-09-07	Wastewater	9/7/2018 1:15:00 PM	9/7/2018	9/17/2018
N032002-001D EFF-09-07	Wastewater	9/7/2018 1:15:00 PM	9/7/2018	9/17/2018



# ANALYTICAL RESULTS

Print Date: 17-Sep-18

CLIENT:	CH2MHill			C	lient Samp	le ID: El	FF-09-07	
Lab Order:	N032002	Collection Date: 9/7/2018 1:15:00 PM						
Project:	SFPP Norwalk	Matrix: WASTEWATER						R
Lab ID:	N032002-001							
Analyses		Result	MDL	PQL	Qual	Units	DF	Date Analyzed
SEMIVOLATIL	E ORGANIC COM	POUNDS BY GC	/MS					
		EPA 3510C		EPA	A 8270C			
RunID: NV009	922-MS3_180914B	QC Batch: 70	647		PrepD	Date:	9/14/2018	Analyst: RRS
Phenol		ND	0.33	1.0		µg/L	1	9/14/2018 06:44 PM
Surr: 1,2-Di	ichlorobenzene-d4	82.0	0	16-120		%REC	1	9/14/2018 06:44 PM
Surr: 2-Fluc	probiphenyl	91.0	0	25-120		%REC	1	9/14/2018 06:44 PM
Surr: 4-Terp	ohenyl-d14	142	0	46-132	S	%REC	1	9/14/2018 06:44 PM
Surr: Pheno	ol-d5	29.0	0	15-120		%REC	1	9/14/2018 06:44 PM
VOLATILE OR		DS BY GC/MS						
				EPA	A 8260B			
RunID: MS8_1	180908A	QC Batch: R	18VW072		PrepD	Date:		Analyst: QBM
1,1-Dichloroet	hane	ND	0.45	0.50		ug/L	1	9/8/2018 11:41 AM
1,2-Dichloroet	hane	ND	0.29	0.50		ug/L	1	9/8/2018 11:41 AM
Benzene		ND	0.34	1.0		ug/L	1	9/8/2018 11:41 AM
Ethylbenzene		ND	0.31	1.0		ug/L	1	9/8/2018 11:41 AM
m,p-Xylene		ND	0.23	1.0		ug/L	1	9/8/2018 11:41 AM
MTBE		ND	0.34	1.0		ug/L	1	9/8/2018 11:41 AM
o-Xylene		ND	0.31	1.0		ug/L	1	9/8/2018 11:41 AM
Tert-Butanol		ND	2.4	5.0		ug/L	1	9/8/2018 11:41 AM
Toluene		ND	0.46	2.0		ug/L	1	9/8/2018 11:41 AM
Xylenes, Total	l	ND	1.5	2.0		ug/L	1	9/8/2018 11:41 AM
Surr: 1,2-Di	ichloroethane-d4	107	0	72-119		%REC	1	9/8/2018 11:41 AM
Surr: 4-Bro	mofluorobenzene	101	0	76-119		%REC	1	9/8/2018 11:41 AM
Surr: Dibror	mofluoromethane	109	0	85-115		%REC	1	9/8/2018 11:41 AM
Surr: Toluer	ne-d8	105	0	81-120		%REC	1	9/8/2018 11:41 AM
TPH EXTRAC	TABLE BY GC/FID							
		EPA 3510C		EPA	A 8015B			
	022-GC3_180910A		581		PrepD		9/10/2018	Analyst: RRS
TPH-Diesel (C	,	18	15	25	J	ug/L	1	9/10/2018 10:48 PM
TPH-Oil (C23-	•	17	14	25	J	ug/L	1	9/10/2018 10:48 PM
Surr: Octac		86.9	0	26-152		%REC	1	9/10/2018 10:48 PM
Surr: p-Terp	ohenyl	89.0	0	57-132		%REC	1	9/10/2018 10:48 PM
GASOLINE R	ANGE ORGANICS	BY GC/FID		EPA	A 8015B			
RunID: NV009	022-GC4_180908A	QC Batch: E1	18VW069		PrepD	Date:		Analyst: QBM
TPH-Gasoline		35	16	50	J	ug/L	1	9/8/2018 11:08 AM
Qualifiers: B	Analyte detected in th			E		ve quantitati		
Н	Holding times for pre-	paration or analysis e	xceeded	J	Analyte de	tected below	v quantitation lim	iits
ND	Not Detected at the R Results are wet unless			S DO	-	ogate outsid Diluted Out		matrix interference
D_	Acourts are wet unless	onici wise specified		ORNIA   P:562.2	19.7435 F:5	562.219.74	36 <u>NEVADA</u>	P:702.307.2659 F:702.307
ving Clients w	vith Passion and	ORIES R TOMOLOGIES Professionalie			Ste B, Cerrit Cert 2921 CA01638	os, CA 907	ELAP	/. Post Rd., Las Vegas, NV 84 Cert 2676   NV Cert NV004 DRELAP/NELAP Cert 4046

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CLIENT:	CH2MHill			Cl	lient Samj	ple ID: E	FF-09-07	
Lab Order:	N032002				Collection	<b>Date:</b> 9/	7/2018 1:15:0	00 PM
Project:	SFPP Norwalk				Ν	Iatrix: W	ASTEWATE	R
Lab ID:	N032002-001							
Analyses		Result	MDL	PQL	Qual	Units	DF	Date Analyzed
GASOLINE F	RANGE ORGANICS	BY GC/FID						
				EPA	8015B			
RunID: NV00	922-GC4_180908A	QC Batch: E1	8VW069		Prepl	Date:		Analyst: QBM
Surr: Chlo	robenzene - d5	138	0	74-138	S	%REC	1	9/8/2018 11:08 AM
MERCURY B	Y COLD VAPOR TE	CHNIQUE						
				EP	A 245.1			
RunID: NV00	)922-AA1_180910B	QC Batch: 70	572		Prepl	Date:	9/10/2018	Analyst: CEI
Mercury		0.024	0.018	0.050	J	µg/L	1	9/10/2018 01:48 PM
TOTAL META	ALS BY ICPMS							
				EP	A 200.8			
RunID NV00	922-ICP7 180911A	QC Batch: 70	574		Prep	Date <sup>.</sup>	9/10/2018	Analyst: CEI

				200.0		
RunID: NV00922-ICP7_180911A	QC Batch: 705	74		PrepDate:	9/10/2018	Analyst: CEI
Copper	ND	0.26	0.50	µg/L	1	9/11/2018 02:17 PM
Lead	ND	0.13	0.50	μg/L	1	9/11/2018 02:17 PM
Zinc	ND	0.27	1.0	μg/L	1	9/11/2018 02:17 PM
TOTAL TPH						

		EPA 8015B								
RunID: NV00922-GC3_180910A	QC Batch: R127510	PrepDate:		Analyst: RRS						
Total TPH	70 16	100 J ug/L	1	9/10/2018						

В Analyte detected in the associated Method Blank Н

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- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
  - Results are wet unless otherwise specified

ASSET LABORATORIES

- Е Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

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## **ASSET Laboratories**

## **ANALYTICAL RESULTS**

Print Date: 17-Sep-18

**Qualifiers:** 

**CLIENT:** Work Order: N032002

SFPP Norwalk **Project:** 

#### Date: 17-Sep-18

## ANALYTICAL QC SUMMARY REPORT

#### TestCode: 200.8\_W\_SFPP

Sample ID: MB-70574	SampType: <b>MBLK</b>	TestCode: 200.8 W SFP Units: µg/L	Prep Date: 9/10/2018	RunNo: 127528
		10	·	
Client ID: PBW	Batch ID: 70574	TestNo: EPA 200.8	Analysis Date: 9/11/2018	SeqNo: 3136279
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Copper	0.446	0.50		J
Lead	ND	0.50		
Zinc	ND	1.0		
Sample ID: LCS-70574	SampType: LCS	TestCode: 200.8_W_SFP Units: µg/L	Prep Date: 9/10/2018	RunNo: 127528
Client ID: LCSW	Batch ID: 70574	TestNo: EPA 200.8	Analysis Date: 9/11/2018	SeqNo: 3136280
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Copper	10.795	0.50 10.00 0	108 85 115	
Lead	10.123	0.50 10.00 0	101 85 115	
Zinc	200.228	1.0 200.0 0	100 85 115	
Sample ID: N032002-001C-DU	IP SampType: DUP	TestCode: 200.8_W_SFP Units: µg/L	Prep Date: 9/10/2018	RunNo: 127528
Client ID: ZZZZZZ	Batch ID: 70574	TestNo: EPA 200.8	Analysis Date: 9/11/2018	SeqNo: 3136291
Analyta				
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Copper	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual 0 20
-			, i i i i i i i i i i i i i i i i i i i	
Copper	ND	0.50	0	0 20
Copper Lead	ND ND ND	0.50 0.50	0	0 20 0 20
Copper Lead Zinc	ND ND ND	0.50 0.50 1.0	0 0 0	0 20 0 20 0 20
Copper Lead Zinc Sample ID: N032002-001C-MS	ND ND ND S SampType: <b>MS</b>	0.50 0.50 1.0 TestCode: <b>200.8_W_SFP</b> Units: μ <b>g/L</b>	0 0 0 Prep Date: <b>9/10/2018</b>	0 20 0 20 0 20 RunNo: <b>127528</b>
Copper Lead Zinc Sample ID: N032002-001C-MS Client ID: ZZZZZZ	ND ND ND S SampType: MS Batch ID: 70574	0.50 0.50 1.0 TestCode: <b>200.8_W_SFP</b> Units: <b>µg/L</b> TestNo: <b>EPA 200.8</b>	0 0 0 Prep Date: 9/10/2018 Analysis Date: 9/11/2018	0 20 0 20 0 20 RunNo: <b>127528</b> SeqNo: <b>3136293</b>
Copper Lead Zinc Sample ID: N032002-001C-MS Client ID: ZZZZZZ Analyte	ND ND S SampType: MS Batch ID: 70574 Result	0.50 0.50 1.0 TestCode: <b>200.8_W_SFP</b> Units: μ <b>g/L</b> TestNo: <b>EPA 200.8</b> PQL SPK value SPK Ref Val	0 0 0 0 Prep Date: 9/10/2018 Analysis Date: 9/11/2018 %REC LowLimit HighLimit RPD Ref Val	0 20 0 20 0 20 RunNo: 127528 SeqNo: 3136293 %RPD RPDLimit Qual

#### Qualifiers:

J

- B Analyte detected in the associated Method Blank
  - Analyte detected below quantitation limits
- Е Value above quantitation range
- ND Not Detected at the Reporting Limit
- S Spike/Surrogate outside of limits due to matrix interference
- Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

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# CLIENT: CH2MHill

Work Order: N032002

**Project:** SFPP Norwalk

## ANALYTICAL QC SUMMARY REPORT

TestCode: 200.8\_W\_SFPP

Sample ID: N	1032002-001C-MSD	SampType: <b>MSD</b>	TestCoo	de: 200.8_W_\$	SFP Units: µg/L		Prep Dat	te: 9/10/20	18	RunNo: 127	528	
Client ID: Z	ZZZZZ	Batch ID: 70574	TestNo: EPA 200.8			Analysis Date: 9/11/2018				SeqNo: 3136294		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper		7.244	0.50	10.00	0	72.4	75	125	7.190	0.746	20	S
Lead		9.863	0.50	10.00	0	98.6	75	125	9.958	0.956	20	
Zinc		175.904	1.0	200.0	0	88.0	75	125	176.0	0.0711	20	

Qualifiers:

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#### CLIENT: CH2MHill

Work Order:N032002Project:SFPP Norwalk

## ANALYTICAL QC SUMMARY REPORT

TestCode: 245.1\_W\_LL

Sample ID: MB-70572	SampType: MBLK	TestCode: 245.1_W_LL Units: µg/L	Prep Date: 9/10/2018	RunNo: 127498
Client ID: PBW	Batch ID: 70572	TestNo: EPA 245.1	Analysis Date: 9/10/2018	SeqNo: 3134748
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Mercury	ND	0.050		
Sample ID: LCS-70572	SampType: LCS	TestCode: 245.1_W_LL Units: µg/L	Prep Date: 9/10/2018	RunNo: 127498
Client ID: LCSW	Batch ID: 70572	TestNo: EPA 245.1	Analysis Date: 9/10/2018	SeqNo: 3134749
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Mercury	2.237	0.050 2.500 0	89.5 85 115	
Sample ID: N032002-001C-MS	SampType: <b>MS</b>	TestCode: 245.1_W_LL Units: µg/L	Prep Date: 9/10/2018	RunNo: <b>127498</b>
Client ID: ZZZZZZ	Batch ID: 70572	TestNo: EPA 245.1	Analysis Date: 9/10/2018	SeqNo: 3134750
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Mercury	2.315	0.050 2.500 0.02374	91.6 75 125	
Sample ID: N032002-001C-MSD	SampType: MSD	TestCode: 245.1_W_LL Units: µg/L	Prep Date: 9/10/2018	RunNo: 127498
Client ID: ZZZZZZ	Batch ID: 70572	TestNo: EPA 245.1	Analysis Date: 9/10/2018	SeqNo: 3134751
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Mercury	2.387	0.050 2.500 0.02374	94.5 75 125 2.315	3.05 20
Sample ID: N032002-001C-DUP	SampType: <b>DUP</b>	TestCode: 245.1_W_LL Units: µg/L	Prep Date: 9/10/2018	RunNo: 127498
Client ID: ZZZZZZ	Batch ID: 70572	TestNo: EPA 245.1	Analysis Date: 9/10/2018	SeqNo: 3134755
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Mercury	0.022	0.050	0.02374	0 20 J

Qualifiers:

J

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits

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ND Not Detected at the Reporting Limit

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- S Spike/Surrogate outside of limits due to matrix interference
- Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

- e to matrix interference Calculations are based on raw of CALIFORNIA | P:562.219.7435 F:562.219.7436 NEVADA | P:702.307.26
  - NEVADA | P:702.307.2659 F:702.307.2691 3151 W. Post Rd., Las Vegas, NV 89118 ELAP Cert 2676 | NV Cert NV00922 ORELAP/NELAP Cert 4046

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#### **CLIENT:** CH2MHill Work Order: N032002

**Project:** SFPP Norwalk

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8015\_W\_FP\_SFPP

Sample ID: MB-70581	SampType: MBLK		le: 8015_W_F	- 0			te: 9/10/2018	RunNo: <b>1275</b>		
Client ID: PBW	Batch ID: 70581	TestN	lo: EPA 8015	B EPA 3510C		Analysis Da	te: 9/10/2018	SeqNo: 3135	383	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD Ref V	al %RPD I	RPDLimit	Qual
TPH-Diesel (C13-C22)	24.750	25								J
TPH-Oil (C23-C36)	26.502	25								
Surr: Octacosane	76.658		80.00		95.8	26	152			
Surr: p-Terphenyl	73.135		80.00		91.4	57	132			

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits
- S Spike/Surrogate outside of limits due to matrix interference
- Е Value above quantitation range ND Not Detected at the Reporting Limit
- Calculations are based on raw values NEVADA | P:702.307.2659 F:702.307.2691 3151 W. Post Rd., Las Vegas, NV 89118 ELAP Cert 2676 | NV Cert NV00922 ORELAP/NELAP Cert 4046
- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

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#### **CLIENT:** CH2MHill Work Order: N032002 **Project:** SFPP Norwalk

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8015\_W\_SFPPTOT

Sample ID: MB-R127510	SampType: MBLK	TestCo	TestCode: 8015_W_SFP Units: ug/L			Prep Da	ite:	RunNo: 127510			
Client ID: PBW	Batch ID: R127510	Test	TestNo: EPA 8015B		Analysis Date: 9/10/2018				SeqNo: 3136220		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total TPH	84.252	100									J

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits
- S Spike/Surrogate outside of limits due to matrix interference
  - 11110 Artesia Blvd., Ste B, Cerritos, CA 90703 ELAP Cert 2921
  - CALIFORNIA P:562.219.7435 F:562.219.7436
    - EPA ID CA01638
- Е Value above quantitation range
- ND Not Detected at the Reporting Limit

Calculations are based on raw values NEVADA | P:702.307.2659 F:702.307.2691

- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

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#### CLIENT: CH2MHill

## Work Order: N032002

Project: SFPP Norwalk

## ANALYTICAL QC SUMMARY REPORT

#### TestCode: 8015GAS\_WSFPP

Sample ID: E180908LCS	SampType: LCS	TestCode: 8015GAS_WS Units: ug/L				Prep Da			RunNo: <b>127467</b>		
Client ID: LCSW	Batch ID: E18VW069	Test	No: EPA 8015	В		Analysis Da	te: 9/8/201	8	SeqNo: 313	35254	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	1026.000	50	1000	0	103	67	136				
Surr: Chlorobenzene - d5	54097.000		50000		108	74	138				
Sample ID: E180908MB2	SampType: MBLK	TestCo	de: 8015GAS	_WS Units: ug/L		Prep Da	te:		RunNo: 127	7467	
Client ID: PBW	Batch ID: E18VW069	Test	No: EPA 8015	В		Analysis Da	te: 9/8/201	8	SeqNo: 313	35256	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	33.000	50									J
Surr: Chlorobenzene - d5	71765.000		50000		144	74	138				S
Sample ID: N032002-001AMS	SampType: <b>MS</b>	TestCo	de: 8015GAS	_WS Units: ug/L		Prep Da	te:		RunNo: 127	7467	
Sample ID: N032002-001AMS Client ID: ZZZZZZ	SampType: <b>MS</b> Batch ID: <b>E18VW069</b>		de: 8015GAS_ No: EPA 8015	- 0		Prep Da Analysis Da		8	RunNo: 127 SeqNo: 313		
			No: EPA 8015	- 0	%REC	Analysis Da	te: 9/8/201	8 RPD Ref Val			Qual
Client ID: ZZZZZZ	Batch ID: <b>E18VW069</b>	Test	No: EPA 8015	B	%REC 102	Analysis Da	te: 9/8/201		SeqNo: 313	35258	Qual
Client ID: ZZZZZZ	Batch ID: E18VW069 Result	Testi PQL	No: EPA 8015 SPK value	B SPK Ref Val		Analysis Da LowLimit	te: <b>9/8/201</b> HighLimit		SeqNo: 313	35258	Qual
Client ID: ZZZZZZ Analyte TPH-Gasoline (C4-C12)	Batch ID: E18VW069 Result 1051.000	Testi PQL 50	No: EPA 8015 SPK value 1000 50000	B SPK Ref Val	102	Analysis Da LowLimit 67	te: <b>9/8/201</b> HighLimit 136 138		SeqNo: 313	85258 RPDLimit	Qual
Client ID: ZZZZZZ Analyte TPH-Gasoline (C4-C12) Surr: Chlorobenzene - d5	Batch ID: E18VW069 Result 1051.000 57981.000	Test PQL 50 TestCo	No: EPA 8015 SPK value 1000 50000	B SPK Ref Val 35.00	102 116	Analysis Da LowLimit 67 74	te: <b>9/8/201</b> HighLimit 136 138 te:	RPD Ref Val	SeqNo: 313 %RPD	85258 RPDLimit	Qual
Client ID: ZZZZZZ Analyte TPH-Gasoline (C4-C12) Surr: Chlorobenzene - d5 Sample ID: N032002-001AMSD	Batch ID: E18VW069 Result 1051.000 57981.000 SampType: MSD	Test PQL 50 TestCo	No: EPA 8015 SPK value 1000 50000 de: 8015GAS No: EPA 8015	B SPK Ref Val 35.00	102 116	Analysis Da LowLimit 67 74 Prep Da Analysis Da	te: 9/8/201 HighLimit 136 138 te: te: 9/8/201	RPD Ref Val	SeqNo: 313 %RPD RunNo: 127	85258 RPDLimit	Qual
Client ID: ZZZZZZ Analyte TPH-Gasoline (C4-C12) Surr: Chlorobenzene - d5 Sample ID: N032002-001AMSD Client ID: ZZZZZZ	Batch ID: E18VW069 Result 1051.000 57981.000 SampType: MSD Batch ID: E18VW069	Testi PQL 50 TestCoo Testi	No: EPA 8015 SPK value 1000 50000 de: 8015GAS No: EPA 8015	B SPK Ref Val 35.00 _WS Units: ug/L B	102 116	Analysis Da LowLimit 67 74 Prep Da Analysis Da	te: 9/8/201 HighLimit 136 138 te: te: 9/8/201	RPD Ref Val	SeqNo: 313 %RPD RunNo: 127 SeqNo: 313	7467 35259	

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits

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Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

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#### **CLIENT:** CH2MHill

Work Order: N032002 **Project:** SFPP Norwalk

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8260\_WP\_SFPP

Sample ID: R180908LCS	SampType: LCS	TestCo	de: 8260_WP_	_SF Units: ug/L		Prep Da	te:		RunNo: 127474		
Client ID: LCSW	Batch ID: R18VW072	Test	No: EPA 8260	В		Analysis Da	te: 9/8/201	8	SeqNo: 313	3594	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	17.910	0.50	20.00	0	89.6	69	133				
1,2-Dichloroethane	17.390	0.50	20.00	0	87.0	69	132				
Benzene	18.190	1.0	20.00	0	91.0	81	122				
Ethylbenzene	17.920	1.0	20.00	0	89.6	73	127				
m,p-Xylene	36.470	1.0	40.00	0	91.2	76	128				
МТВЕ	17.510	1.0	20.00	0	87.6	65	123				
o-Xylene	17.580	1.0	20.00	0	87.9	80	121				
Tert-Butanol	91.620	5.0	100.0	0	91.6	70	130				
Toluene	18.310	2.0	20.00	0	91.6	77	122				
Xylenes, Total	54.050	2.0	60.00	0	90.1	75	125				
Surr: 1,2-Dichloroethane-d4	26.930		25.00		108	72	119				
Surr: 4-Bromofluorobenzene	26.840		25.00		107	76	119				
Surr: Dibromofluoromethane	27.180		25.00		109	85	115				
Surr: Dibromofluoromethane Surr: Toluene-d8	27.180 27.410		25.00 25.00		109 110	85 81	115 120				
		TestCo	25.00	_SF Units: ug/L			120		RunNo: <b>127</b>	474	
Surr: Toluene-d8	27.410		25.00		110	81	120 te:	8	RunNo: <b>127</b> SeqNo: <b>313</b>		
Surr: Toluene-d8 Sample ID: N032002-001AMS	27.410 SampType: <b>MS</b>		25.00 de: 8260_WP_ No: EPA 8260		110	81 Prep Da	120 te: te: <b>9/8/201</b>	8 RPD Ref Val			Qual
Surr: Toluene-d8 Sample ID: N032002-001AMS Client ID: ZZZZZ	27.410 SampType: MS Batch ID: R18VW072	Test	25.00 de: 8260_WP_ No: EPA 8260	B	110	81 Prep Da Analysis Da	120 te: te: <b>9/8/201</b>		SeqNo: 313	3595	Qual
Surr: Toluene-d8 Sample ID: N032002-001AMS Client ID: ZZZZZZ Analyte	27.410 SampType: MS Batch ID: R18VW072 Result	Testi PQL	25.00 de: <b>8260_WP</b> _ No: <b>EPA 8260</b> SPK value	B SPK Ref Val	110 %REC	81 Prep Da Analysis Da LowLimit	120 te: te: <b>9/8/201</b> HighLimit		SeqNo: 313	3595	Qual
Surr: Toluene-d8 Sample ID: N032002-001AMS Client ID: ZZZZZZ Analyte 1,1-Dichloroethane	27.410 SampType: <b>MS</b> Batch ID: <b>R18VW072</b> Result 16.490	Testi PQL 0.50	25.00 de: <b>8260_WP</b> _ No: <b>EPA 8260</b> SPK value 20.00	B SPK Ref Val	110 %REC 82.5	81 Prep Da Analysis Da LowLimit 69	120 te: te: <b>9/8/201</b> HighLimit 133		SeqNo: 313	3595	Qual
Surr: Toluene-d8 Sample ID: N032002-001AMS Client ID: ZZZZZZ Analyte 1,1-Dichloroethane 1,2-Dichloroethane	27.410 SampType: <b>MS</b> Batch ID: <b>R18VW072</b> Result 16.490 16.020	Test PQL 0.50 0.50	25.00 de: <b>8260_WP</b> _ No: <b>EPA 8260</b> SPK value 20.00 20.00	B SPK Ref Val 0 0	110 %REC 82.5 80.1	81 Prep Da Analysis Da LowLimit 69 69	120 te: HighLimit 133 132		SeqNo: 313	3595	Qual
Surr: Toluene-d8 Sample ID: N032002-001AMS Client ID: ZZZZZZ Analyte 1,1-Dichloroethane 1,2-Dichloroethane Benzene	27.410 SampType: MS Batch ID: R18VW072 Result 16.490 16.020 16.930	Test PQL 0.50 0.50 1.0	25.00 de: 8260_WP_ No: EPA 8260 SPK value 20.00 20.00 20.00	B SPK Ref Val 0 0 0	110 %REC 82.5 80.1 84.6	81 Prep Da Analysis Da LowLimit 69 69 81	120 te: HighLimit 133 132 122		SeqNo: 313	3595	Qual
Surr: Toluene-d8 Sample ID: N032002-001AMS Client ID: ZZZZZZ Analyte 1,1-Dichloroethane 1,2-Dichloroethane Benzene Ethylbenzene	27.410 SampType: MS Batch ID: R18VW072 Result 16.490 16.020 16.930 17.310	Test PQL 0.50 0.50 1.0 1.0	25.00 de: 8260_WP_ No: EPA 8260 SPK value 20.00 20.00 20.00 20.00	B SPK Ref Val 0 0 0 0	110 %REC 82.5 80.1 84.6 86.6	81 Prep Da Analysis Da LowLimit 69 69 81 73	120 te: HighLimit 133 132 122 127		SeqNo: 313	3595	Qual
Surr: Toluene-d8 Sample ID: N032002-001AMS Client ID: ZZZZZZ Analyte 1,1-Dichloroethane 1,2-Dichloroethane Benzene Ethylbenzene m,p-Xylene	27.410 SampType: MS Batch ID: R18VW072 Result 16.490 16.020 16.930 17.310 35.140	Test PQL 0.50 0.50 1.0 1.0 1.0	25.00 de: 8260_WP_ No: EPA 8260 SPK value 20.00 20.00 20.00 20.00 40.00	B SPK Ref Val 0 0 0 0 0	110 %REC 82.5 80.1 84.6 86.6 87.9	81 Prep Da Analysis Da LowLimit 69 69 81 73 76	120 te: HighLimit 133 132 122 127 128		SeqNo: 313	3595	Qual
Surr: Toluene-d8 Sample ID: N032002-001AMS Client ID: ZZZZZZ Analyte 1,1-Dichloroethane 1,2-Dichloroethane Benzene Ethylbenzene m,p-Xylene MTBE	27.410 SampType: MS Batch ID: R18VW072 Result 16.490 16.020 16.930 17.310 35.140 15.590	Test PQL 0.50 0.50 1.0 1.0 1.0 1.0 1.0	25.00 de: 8260_WP_ No: EPA 8260 SPK value 20.00 20.00 20.00 40.00 20.00	B SPK Ref Val 0 0 0 0 0 0 0	110 %REC 82.5 80.1 84.6 86.6 87.9 78.0	81 Prep Da Analysis Da LowLimit 69 69 81 73 76 65	120 te: HighLimit 133 132 122 127 128 123		SeqNo: 313	3595	Qual
Surr: Toluene-d8 Sample ID: N032002-001AMS Client ID: ZZZZZZ Analyte 1,1-Dichloroethane 1,2-Dichloroethane Benzene Ethylbenzene m,p-Xylene MTBE o-Xylene	27.410 SampType: MS Batch ID: R18VW072 Result 16.490 16.020 16.930 17.310 35.140 15.590 17.080	Test PQL 0.50 0.50 1.0 1.0 1.0 1.0 1.0	25.00 de: 8260_WP_ No: EPA 8260 SPK value 20.00 20.00 20.00 40.00 20.00 20.00 20.00	B SPK Ref Val 0 0 0 0 0 0 0 0 0 0 0	110 %REC 82.5 80.1 84.6 86.6 87.9 78.0 85.4	81 Prep Da Analysis Da LowLimit 69 69 81 73 76 65 80	120 te: HighLimit 133 132 122 127 128 123 121		SeqNo: 313	3595	Qual
Surr: Toluene-d8 Sample ID: N032002-001AMS Client ID: ZZZZZZ Analyte 1,1-Dichloroethane 1,2-Dichloroethane Benzene Ethylbenzene m,p-Xylene MTBE o-Xylene Tert-Butanol	27.410 SampType: MS Batch ID: R18VW072 Result 16.490 16.020 16.930 17.310 35.140 15.590 17.080 80.810	Test PQL 0.50 0.50 1.0 1.0 1.0 1.0 1.0 5.0	25.00 de: 8260_WP_ No: EPA 8260 SPK value 20.00 20.00 20.00 20.00 40.00 20.00 20.00 100.0	B SPK Ref Val 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	110 %REC 82.5 80.1 84.6 86.6 87.9 78.0 85.4 80.8	81 Prep Da Analysis Da LowLimit 69 69 81 73 76 65 80 70	120 te: HighLimit 133 132 122 127 128 123 121 130		SeqNo: 313	3595	Qual

#### Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits
- Е Value above quantitation range

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- ND Not Detected at the Reporting Limit
- S Spike/Surrogate outside of limits due to matrix interference
- Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

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#### CLIENT: CH2MHill

Work Order:N032002Project:SFPP Norwalk

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8260\_WP\_SFPP

Sample ID: N032002-001AMS	SampType: <b>MS</b>	TestCode: 8260_WP_SF Units: ug/L				Prep Dat	te:		RunNo: 127474		
Client ID: ZZZZZZ	Batch ID: R18VW072	Test	No: EPA 8260	В		Analysis Da	te: 9/8/201	8	SeqNo: 313	33595	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	25.740		25.00		103	76	119				
Surr: Dibromofluoromethane	25.290		25.00		101	85	115				
Surr: Toluene-d8	25.770		25.00		103	81	120				
Sample ID: N032002-001AMSD	SampType: <b>MSD</b>	TestCo	de: 8260_WP_	SF Units: ug/L		Prep Dat	te:		RunNo: 127	7474	
Client ID: ZZZZZZ	Batch ID: R18VW072	TestNo: EPA 8260B				Analysis Da	te: 9/8/201	8	SeqNo: 313	33596	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	17.700	0.50	20.00	0	88.5	69	133	16.49	7.08	20	
1,2-Dichloroethane	16.990	0.50	20.00	0	85.0	69	132	16.02	5.88	20	
Benzene	18.080	1.0	20.00	0	90.4	81	122	16.93	6.57	20	
Ethylbenzene	18.430	1.0	20.00	0	92.2	73	127	17.31	6.27	20	
m,p-Xylene	36.510	1.0	40.00	0	91.3	76	128	35.14	3.82	20	
MTBE	16.490	1.0	20.00	0	82.5	65	123	15.59	5.61	20	
o-Xylene	17.960	1.0	20.00	0	89.8	80	121	17.08	5.02	20	
Tert-Butanol	83.900	5.0	100.0	0	83.9	70	130	80.81	3.75	20	
Toluene	18.410	2.0	20.00	0	92.0	77	122	17.14	7.14	20	
Xylenes, Total	54.470	2.0	60.00	0	90.8	75	125	52.22	4.22	20	
Surr: 1,2-Dichloroethane-d4	25.390		25.00		102	72	119		0		
Surr: 4-Bromofluorobenzene	26.230		25.00		105	76	119		0		
Surr: Dibromofluoromethane	25.480		25.00		102	85	115		0		
Surr: Toluene-d8	26.100		25.00		104	81	120		0		
Sample ID: R180908MB3	SampType: MBLK	TestCo	de: 8260_WP_	SF Units: ug/L		Prep Dat	te:		RunNo: 127	7474	
Client ID: PBW	Batch ID: R18VW072	Test	No: EPA 8260	В		Analysis Da	te: 9/8/201	8	SeqNo: 313	33599	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	ND	0.50									
1,2-Dichloroethane	ND	0.50									
Benzene	ND	1.0									

#### Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- S Spike/Surrogate outside of limits due to matrix interference
- Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

e to matrix interference Calculations are based <u>CALIFORNIA</u>|P:562.219.7435 F:562.219.7436 <u>NEVADA</u>|P:

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#### CLIENT: CH2MHill

Work Order:N032002Project:SFPP Norwalk

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8260\_WP\_SFPP

Sample ID: R180908MB3	SampType: <b>MBLK</b>	TestCo	TestCode: 8260_WP_SF Units: ug/L			Prep Date:				RunNo: 127474		
Client ID: PBW	Batch ID: R18VW072	Test	TestNo: EPA 8260B			Analysis Date: 9/8/2018				SeqNo: 3133599		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Ethylbenzene	ND	1.0										
m,p-Xylene	ND	1.0										
МТВЕ	ND	1.0										
o-Xylene	ND	1.0										
Tert-Butanol	ND	5.0										
Toluene	ND	2.0										
Xylenes, Total	ND	2.0										
Surr: 1,2-Dichloroethane-d4	27.180		25.00		109	72	119					
Surr: 4-Bromofluorobenzene	24.910		25.00		99.6	76	119					
Surr: Dibromofluoromethane	28.020		25.00		112	85	115					
Surr: Toluene-d8	26.420		25.00		106	81	120					

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits
- S Spike/Surrogate outside of limits due to matrix interference
- E Value above quantitation range
- ND Not Detected at the Reporting Limit

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

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#### **CLIENT:** CH2MHill

Work Order: N032002 **Project:** SFPP Norwalk

## ANALYTICAL QC SUMMARY REPORT

#### TestCode: 8270WATER\_SIMEXT

Sample ID: LCS-70647	SampType: LCS	TestCode: 8270WATER_ Units: µg/L	Prep Date: 9/14/2018	RunNo: 127646
Client ID: LCSW	Batch ID: 70647	TestNo: EPA 8270C EPA 3510C	Analysis Date: 9/14/2018	SeqNo: 3141077
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Phenol	2.460	1.0 6.000 0	41.0 24 120	
Surr: 1,2-Dichlorobenzene-d4	0.700	1.000	70.0 16 120	
Surr: 2-Fluorobiphenyl	0.780	1.000	78.0 25 120	
Surr: 4-Terphenyl-d14	1.320	1.000	132 46 132	
Surr: Phenol-d5	0.330	1.000	33.0 15 120	
Sample ID: MB-70647	SampType: MBLK	TestCode: 8270WATER_ Units: µg/L	Prep Date: 9/14/2018	RunNo: 127646
Client ID: PBW	Batch ID: 70647	TestNo: EPA 8270C EPA 3510C	Analysis Date: 9/14/2018	SeqNo: 3141078
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Phenol	ND	1.0		
Surr: 1,2-Dichlorobenzene-d4	0.830	1.000	83.0 16 120	
Surr: 2-Fluorobiphenyl	0.850	1.000	85.0 25 120	
Surr: 4-Terphenyl-d14	1.340	1.000	134 46 132	S
Surr: Phenol-d5	0.220	1.000	22.0 15 120	
Sample ID: N032002-001D-MS	SampType: <b>MS</b>	TestCode: 8270WATER_ Units: µg/L	Prep Date: 9/14/2018	RunNo: 127646
Client ID: ZZZZZZ	Batch ID: 70647	TestNo: EPA 8270C EPA 3510C	Analysis Date: 9/14/2018	SeqNo: <b>3141080</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Phenol	2.430	1.0 6.000 0	40.5 24 120	
Surr: 1,2-Dichlorobenzene-d4	0.760	1.000	76.0 16 120	
Surr: 2-Fluorobiphenyl	0.670	1.000	67.0 25 120	
Surr: 4-Terphenyl-d14	1.730	1.000	173 46 132	S

Qualifiers:

S

- B Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits

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- Spike/Surrogate outside of limits due to matrix interference
- Е Value above quantitation range
- ND Not Detected at the Reporting Limit

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

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#### CLIENT: CH2MHill

Work Order:N032002Project:SFPP Norwalk

## ANALYTICAL QC SUMMARY REPORT

#### TestCode: 8270WATER\_SIMEXT

Sample ID: N032002-001D-MSD	SampType: <b>MSD</b>	TestCo	de: 8270WATE	<b>R_</b> Units: µg/L		Prep Dat	te: 9/14/20	18	RunNo: 127	7646	
Client ID: ZZZZZZ	Batch ID: 70647	TestN	lo: EPA 82700	C EPA 3510C		Analysis Dat	te: 9/14/20	18	SeqNo: <b>314</b>	1081	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	2.622	1.0	6.122	0	42.8	24	120	2.430	7.62	20	
Surr: 1,2-Dichlorobenzene-d4	0.816		1.020		80.0	16	120		0		
Surr: 2-Fluorobiphenyl	0.776		1.020		76.0	25	120		0		
Surr: 4-Terphenyl-d14	1.622		1.020		159	46	132		0		S
Surr: Phenol-d5	0.367		1.020		36.0	15	120		0		

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits
- S Spike/Surrogate outside of limits due to matrix interference
- E Value above quantitation range
- ND Not Detected at the Reporting Limit

 Calculations are based on raw values

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 F:702.307.2691

- H Holding times for preparation or analysis exceeded
- R RPD outside accepted recovery limits

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#### Asset Laboratories 3151 W. Post Road Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691 Marlon Cartin (marlon@assetlaboratories.com)

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CHAIN OF CUSTODY RECORD 4 8 DATE: PAGE: of

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					O = Oil	P = Product	S = Soil	Z = Zn(AC)2	0 = NaOH	T = Na2S2O3	<u> </u>	B = Tedlar	G = Glass	
					W = Water	WW = Wastewa		H = HCl	N = HNO3	5 = H2SO4	T ≖ Tube	V = VOA	P = Pint	A = Amber
					Matrix:			Preservatives:			Container Type	:		
								TAT Starts at 8 AN	i the folfowiing day 3:00 PM.	if samples received after				
V	Relinguished by (Signal Line and Printed Name):	Dats / Time		Rolinquished by (Signature and S inted Name):	Data / Time			□E = 10 Wo	rkdays					
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	Relinquished by (Signature and Printed Same).	Date / Time		Relinquished by (Signeture and Printed Name):	Date / Tima	ext-1		Turn Around Time	(TAT):		Special Instructi			

4-10th

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	9/7/2018				Workorder:	N032002		
Rep sample Temp (Deg C):	4.1				IR Gun ID:	2		
Temp Blank:	✓ Yes	🗌 No						
Carrier name:	Golden St	ate Overnight						
Last 4 digits of Tracking No.:	1402			Packing	Material Used:	Bubble Wrap		
Cooling process:	✓ Ice	Ice Pack	Dry Ice	Other	None None			
		<u>Sa</u>	ample Recei	ot Checklist				
1. Shipping container/cooler in g	good conditio	on?			Yes 🗹	No 🗌	Not Present	
2. Custody seals intact, signed,	dated on sh	ippping container/	cooler?		Yes	No 🗌	Not Present	
3. Custody seals intact on samp	ble bottles?				Yes	No 🗌	Not Present	
4. Chain of custody present?					Yes 🗹	No 🗌		
5. Sampler's name present in C	OC?				Yes 🗹	No 🗌		
6. Chain of custody signed when	n relinquishe	ed and received?			Yes 🗹	No 🗌		
7. Chain of custody agrees with	sample labe	els?			Yes 🗹	No 🗌		
8. Samples in proper container/b	bottle?				Yes 🗹	No 🗌		
9. Sample containers intact?					Yes 🗹	No 🗌		
10. Sufficient sample volume for	r indicated te	est?			Yes 🗹	No 🗌		
11. All samples received within I	holding time	?			Yes 🗹	No 🗌		
12. Temperature of rep sample	or Temp Bla	nk within acceptal	ble limit?		Yes 🗹	No 🗌	NA 🗌	
13. Water - VOA vials have zero	o headspace	?			Yes 🗹	No 🗌	NA 🗌	
14. Water - pH acceptable upon	receipt?				Yes 🗹	No 🗌	NA 🗌	
Example: pH > 12 for (CN	N,S); pH<2 f	or Metals						
15. Did the bottle labels indicate	correct pres	servatives used?			Yes 🗹	No 🗌	NA 🗌	
16. Were there Non-Conforman		-			Yes	No 🗌	NA 🗹	
W	as Client no	tified?			Yes 🗋	No 🗔	NA 🗹	
Comments:								

YR 9/10/2018

LG 091118

Reviewed By:

WORK O	RDER Summar	v		10-Sep-18									
Client ID:	CH2HI03	·				WorkOrder: N032002							
Project:	SFPP Norwalk		QC Leve	I: RTNE		Date Receive	e <b>d:</b> 9/	7/20	)18				
Comments:	Report metals, TPH ar	nd VOC preliminary data	on 24-hr TAT										
Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld I	MS	Sub	Storage			
N032002-001A	EFF-09-07	9/7/2018 1:15:00 PM	9/10/2018	Wastewater	EPA 8015B	GASOLINE RANGE ORGANICS BY GC/FID				VW			
			9/10/2018		EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS				VW			
N032002-001B			9/10/2018		EPA 3510C	SEPARATORY FUNNEL EXTRACTION: EXTRACTABLE FUELS				WW			
			9/10/2018		EPA 8015B	TPH EXTRACTABLE BY GC/FID				WW			
			9/10/2018		EPA 8015B	Total TPH				WW			
N032002-001C			9/10/2018			AQPREP TOTAL METALS: ICP, FLAA				WW			
			9/10/2018		EPA 200.8	TOTAL METALS BY ICPMS				WW			
			9/10/2018		EPA 245.1	MERCURY BY COLD VAPOR TECHNIQUE				WW			
			9/10/2018			MERCURY PREP				WW			
N032002-001D			9/14/2018		EPA 3510C	SEPARATORY FUNNEL EXTRACTION: 8270C - SIM				WW			
			9/14/2018		EPA 8270C	SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS				WW			
N032002-002A	FOLDER	9/10/2018	9/10/2018		Folder	Folder				LAB			
			9/10/2018		Folder	Folder				LAB			



Ship From ASSET LABORATORIES MOLKY BRAR 11110 ARTESIA BLVD. SUITE B CERRITOS, CA 90703

Ship To ASSET LABORATORIES MARLON CARTIN 3151 W. POST RD., LAS VEGAS, NV 89118

COD: \$0.00 Weight: 0 lb(s) Reference:

**Delivery Instructions:** HOLD FOR PICK-UP **Signature Type:** STANDARD



800-322-5555

0266049

Print Date: 9/7/2018 7:29 PM

Package 2 of 4

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

Step 1: Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer. Step 2: Fold this page in half.

Step 3: Securely attach this label to your package and do not cover the barcode.

#### **TERMS AND CONDITIONS:**

By giving us your shipment to deliver, you agree to all of the GSO service terms & conditions including, but not limited to; limits of liability, declared value conditions, and claim procedures which are available on our website at www.gso.com.

WIN

Attachment B Data Quality Assurance/Quality Control



# **Data Quality Assurance/Quality Control**

Data quality was evaluated by examining the holding times, laboratory method blanks, surrogate percent recoveries, laboratory control sample/laboratory control sample duplicates (LCS/LCSD) and matrix spike/matrix spike duplicate (MS/MSD) percent recoveries and relative percent differences (RPDs). Data quality review results for each analysis are outlined in the following subsections.

## **Analytical Data**

The data quality evaluation report covers four normal effluent samples. Samples were collected between July 12 and September 7, 2018. Analyses were performed by Asset Laboratories in Cerritos, California and BC Laboratories in Bakersfield, California. The sample results were reported as four sample delivery groups:

Sample Delivery Groups
N031203
N031531
N031731
N032002

Eleven methods were used to analyze the environmental samples. Samples were collected and submitted directly to the Asset Laboratories for analysis. Asset Laboratories was responsible for shipment of samples BC Laboratories. Samples were analyzed for the following analytes/method:

Parameter	Method
Turbidity	SM2130B
Total suspended solids	SM2540D
Settleable solids	SM2540F
Biochemical oxygen demand	SM5210B
Oil and grease	E1664
Metals	E200.8/E245.1
Ammonia	SM4500NH3G
Total petroleum hydrocarbons – gasoline, diesel and motor oil ranges	SW8015B
Volatile organic compounds	SW8260B
Phenol	SW8270C

Data validation flags were assigned using guidance from the EPA Contract Laboratory National Functional Guidelines for Organic Superfund Methods Data Review (EPA, 2017) and EPA Contract Laboratory National Functional Guidelines for Inorganic Superfund Methods Data Review (EPA, 2017). Multiple flags are routinely applied to specific sample method/matrix/analyte combinations, but there will be only one final flag. A final flag is applied to the data and is the most conservative of the applied data validation flags. The final flag also includes blank sample impacts.



The data validation flags are as follows:

- J = Analyte was present, but the reported value may not be accurate or precise (estimated). The result was estimated because it was less than the referenced reporting limit, but greater than the method detection limit, or because a QC exceedance occurred.
- R = Data were unusable because of deficiencies in the ability to analyze the sample and meet QC criteria.
- U = Analyte was not detected at the specified detection limit.
- UJ = Analyte was not detected, and the specified detection limit may not be accurate or precise (estimated).

## **Findings**

The overall summaries of the data validation findings are contained in the following subsections.

#### **Holding Times**

All holding time criteria were met.

#### Method Blanks

Method blanks were analyzed at the required frequency and were free of contamination that would affect the sample results with the following exceptions:

 TPH-motor oil, TPH-gasoline, TPH-diesel, and total TPH were detected less than the reporting limit (RL) in the method blanks for Method SW8015B. Seven associated results were detected less than five times the blank concentrations and were qualified as not detected and flagged "U" in samples EFF-07-12, EFF-08-03, and EFF-09-07. Total TPH reportable results were adjusted in samples EFF-07-12 and EFF-08-03 to compensate for the fractions qualified as not detected.

#### Surrogates

All surrogate recovery criteria were met.

#### **Internal Standards**

All internal standard criteria were met.

#### Laboratory Control Samples

LCS/LCSDs were analyzed as required. All accuracy and precision criteria were met.

#### Matrix Spikes/Matrix Spike Duplicates

The results of MS/MSD analyses provide information about the possible influence of the matrix on either accuracy or precision of the measurements. There were no MS/MSD recovery or RPD exceedances that would affect the sample results with the following exceptions:

 The recovery of copper was less than the lower control limit in the MS and/or MSD of samples EFF-07-12 and EFF-09-07 for Method E200.8, indicating the associated parent sample results are possibly biased low. The associated nondetected results were qualified as estimated and flagged "UJ."



## Chain-of-Custody

Each sample was documented in a completed chain-of-custody and received at the laboratory in good condition.

#### **Overall Assessment**

An overall evaluation of the data indicates that the sample handling, shipment, and analytical procedures have been adequately completed, and that the analytical results are considered usable taking into consideration possible biases as described above.

Attachment C Waste Manifests

				• •	•	,	L	G	4-7	27	I		
Ple	ase p	rint or type. (Form desig	ned for use o	n elite (12-pitch) ty	pewriter.) •	*	0			For	n Approved	OMB No.	2050-0039
1	UN		1. Generator I	D Number	33962		3. Emergency Respon 300-624-9136		4, Manifest		339	6 <b>J</b>	JK
	5. G	enerator's Name and Mailin SFPP, L.P. NOTWO	a Address alk Station		Att: Karin		enerator's Site Addres SFPP, L.P. NO		than mailing addres	ss)			
		1100 Town and Co Orange CA 9286	ountry Rd. 38			1	5306 Norwalk Norwalk CA 9	Blvd.					
11	Gen	erator's Phone: 7 1	<b>á</b> 5	60-488	B 7			0001					
		ransporter 1 Company Nam Patriot Environm		vices							386	670	
		ransporter 2 Company Nam							U.S. EPAID N		000	010	
11													
Ц		esignated Facility Name an DK DBA WORLD		YCLING					U.S, EPA ID N	lumber			
		2000 N, ALAMED COMPTON CA 9		T									
		lity's Phone: 310 53	7-7100	-				10.7	CAT	08	001	335	2
11	9a. HM	15.11.0.11		oper Shipping Name,	Hazard Class, ID Numbe	r,	10. Cont No.	ainers Type	11. Total Quantity	12. Unit Wt./Vol.	13,	Waste Code	S
	V	1.UN1993, Flam	mable liqu	iids, n.o.s. (Ga	asoline)			1			D001	D018	134
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		marked and labeled/placar Exporter. I certify that the c	rded, and are in contents of this r	all respects in proper consignment conform	condition for transport at to the terms of the attack	cording to application and EPA Acknowled	ble international and na igment of Consent.	ational govern	mental regulations.	If export sl	ripment and I	am the Prim	ary
	Gan	I certify that the waste min erator's/Offeror's Printed/Ty	imization statem	nent identified in 40 C	FR 262.27(a) (if I am a la	rge quantity genera Signa	ator) or (b) (if I am a sr	nall quantity g	enerator) is true.		Мо	nth Day	Year
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NSP C	X Tran	sporter 2 Printed/Typed Na	lasg	ulz		Signa	fure	- ay			Mo	2 2.00 nth Day	> / 8 Year
TRANSPORT									£				
Ì↑	18.	Discrepancy											
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	18c.	Signature of Alternate Faci	lity (or Generato	or)							M	onth Da I	y Year I
DESIGNATED FACILITY	19	Hazardous Waste Report M	anagement Met	hod Codes (i.e., code	es for hazardous waste tr	eatment, disposal,	and recycling systems	)					
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		Designated Facility Owner ( ted/Typed Name	or Operator: Cer		nazaruous matemais cov	Signa		100	1 11	/	M	onth Day	Year
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ase	e print or type. (Form designed		) typewriter.)				14 Mar 26 - 4		n Approved. OM	B No. 2050-00
U		Generator ID Number	33962	2. Page 1 of	3. Emergency Respon 800-624-9136	se Phone	4. Manifest	482	3356	JJK
	Generator's Name and Mailing Ac SEPP, L.P. Norwalk 3 1100 Town and Coun Orange CA 92868 Senerator's Phone: 7 1 4	tdress Station	Att: Karin		Generator's Site Addres SFPP, L.P. Nor 15306 Norwalk Norwalk CA 9	walk Stat Blvd.	han mailing addres			
6	. Transporter 1 Company Name Patriot Environmer	**	анаунуун ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (						3866	794
7.	. Transporter 2 Company Name		11 - 11 - 11 - 12 - 12 - 12 - 12 - 12 -	4 . I	s Service and service		U.S. EPA ID N			
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<b></b>	9a. 9b. U.S. DOT Description (i	ncluding Proper Shipping Nar	ne, Hazard Class, ID Numbe	er,	10. Cont	F	11. Total	12. Unit	13. Wast	e Codes
·~,	HM and Packing Group (if any))	Flammable liquids,	nns		No	Туре	Quantity	Wt./Vol.	001 000	18 134
	X 3, PGII (Gasolin		9 v. 90° i Nilo v		001	-particular and a	1,800	G		1.02
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	3.	DeMENNO/KEF REGYCLING FA	IG/TRUATMENT AT ROOON DBA WORLI CILITY IN COMPTC HAS THE NECESSA	D OIL DN, CALIFOF	RNIA. S TO				Constantion of the advance for the former and the second	
	4.	OUR EPA NUM	HWASTE CTHEAM7 BER IS CAT080013:	<del>48-00лыны</del> 352	9. 					
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# Certificate of Treatment/Recycling

## SFPP - NORWALK STATION

## FOR

DATE RECEIVED 8/28/2018

## MANIFEST NUMBER 014823356JJK

The aqueous waste received on the above manifest will be treated to standards mandated by the FEDERAL CLEAN WATER ACT and to elituent requirements established by the Sanitation Districts of Los Angeles County. Waste treatment and recycling is performed under permits granted to DeMENNO/KERDOON, a California Corporation, by the California Department of Toxic Control (DTSC). In coordination with the Environmental Protection Agency, in accordance with the provisions of the Resource Conservation and Recovery Act (RCRA) of 1976, together with applicable federal and state regulations including but not limited to waste discharge requirements established by the Sanitation Districts of Los Angeles County.

When the above described waste material is accepted by DeMENNO/KERDOON and treated/recycled and the aqueous phase discharged for further treatment by the Sanitation Districts, the certificate holder's responsibility for the waste material is aliminated under both RCRA and Proposition 65. Upon request, DeMENNO/KERDOON will issue this certificate that all waste material has been handled in accordance with applicable permits and the certificate holder's liability has been terminated.

DeM	IENNO/KERDOON
*Complia	ince Through Recycling"
By:	Date: 9/21/2018
Cyrus Pourf <del>assa</del> nian Laboratory Manager	

2000 North Alameda Street @ Compton @ California @ 90222 Telephone (310) 537-7100 @ Facsimile (310) 639-2946

NON-HAZARDOUS	WASTE	MANIFEST

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Fleas	e print or type (Form designed for use on elite (1	2 pitch) typewriter)	DW 18	046764	402	144. 144	
	NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No.	CAT0800339	62	Manifest Document No.	NH676402	2. Page 1 of <b>1</b>
	3. Generator's Name and Mailing Address Sfop. 1.P. Norwalk Station 1100 Town And Country Re Orange CA 92868 4. Generator's Phone (714) 580-488		Site Address : 15306 Norwalk Boulevard Norwalk,CA 90651				
	5. Transporter 1 Company Name	6.	US EPA ID Number		A. State Trans	porter's ID	<u> </u>
1	Clean Harbors Environmen	tal Services, Inc.	MAD0393222	50	B, Transporter	1 Phone 781	792-5000
	7. Transporter 2 Company Name	8.	US EPA ID Number		C. State Trans	porter's ID	
- Ditte		1			D, Transporter	2 Phone	
	9. Designated Facility Name and Site Address	10.	US EPA ID Number		E. State Facilit	y's ID	
潮道	Clean Harbors Wilmington	LLC	CAD04442	9835			
	1737 East Denni Street Wilmington, CA 90744	ł	on don i ra		F. Facility's Ph	one 835-9998	
-1976) 1954 -		<u> </u>				·····	14.
	11. WASTE DESCRIPTION			No.	ontainers Type	13. Total Quantity	Unit Wt./Vol.
	a. NON D.O.T. REGULATED, (	DEBRIS)	· ·	1	DM	80	P
G	b. NON HAZARDOUS, NON D.	O.T. REGULATED, (S	OIL)			223	0
E N				2	DM	300	$ \Psi $
E R A T	• NON D.O.T. REGULATED, (	FILTERS)		1	DM	80	P
O	d.						
R	0.						
						odes for Wastes Listed Abov	
	G. Additional Descriptions for Materials Listed Above 11a.CH1401785 11b.CH1418957 11c.CH1424321-NH						
		mation		·····	EMERGE	NCY PHONE #: (80	01483-3711
휇	15. Special Handling Instructions and Additional Info <b>11a. Gloves/Rags/Debris</b>		a Commission Transf	nant		OR: Sfpp, L.P. No	
	Sysstem Filters (BIO)	110.39#Couings 11		•			
			117) X 55 DA				XSSDM
	16. GENERATOR'S CERTIFICATION: I hereby cert in proper condition for transport. The materials de	escribed on this manifest are not	subject to federal hazardous waste	regulations.	an respects		
					·		Date
	Printed/Typed Name		Signature			Mo	nth Day Year
	Tatrick LoyA		$\perp$		1	9	Date
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A N	Plined/Typed Name		Kings IIII	ula		1	2 19 18
	19. Transporter 2 Approvided amount of Description	Antorials	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	<u>*</u> 9-		0	Date 10
∣₿ŀ	18. Transporter 2 Acknowledgement of Receipt of M Printed/Typed Name		Signature			Мо	
TRANSPORTER	типентурен напе		Jighteroro			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
F	19. Discrepancy Indication Space						
A C							
	20. Facility Owner or Operator: Certification of receip	of the waste materials covered	by this manifest, except as noted in	item 19.			
	•						Date
Ť	Printed Typed Name	29	Signature	. ANA		Mo ) (	
			1 100000	10-21		¥_	
CF	-14 © 2002 LABELMASTER 🖲 (800) 621-	5808 www.labelmaster.c	om V			USING	OTHEAN INK SOY INK

NON-HAZARDOUS WASTE

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nt or type (Form designed for use on elite ( NON-HAZARDOUS	12 pitch) typewriter) 1. Generator's US EPA ID N	DW 1804		Manifest		2. Page 1
WASTE MANIFEST		CAT08003396	2	Document No.	NH18046764	<b>2</b> of <b>1</b>
Generator's Name and Mailing Address Sfop, L.P. Norwalk Station					tdeess : Korwaik Boulevard	
1100 Town And Country R	oad				CA 90631	
<ul> <li>Orange CA 92868</li> </ul>		Karina Hankins				
Generator's Phone ( <b>(714) 580-488</b> Transporter 1 Company Name	6.	US EPA ID Number		A. Stale Transpo		
Clean Harbors Environmer	ntal Services, Inc	MAD03932225	0	B. Transporter 1	Phone (791	792-5000
Transporter 2 Company Name	8.	US EPA ID Number		C. State Transpo		
		US EPA ID Number		D. Transporter 2 E. State Facility		
Designated Facility Name and Site Address Clean Harbors San Jose Ll	10.			CADOS	9494310	
1021 Berryessa Road		CAD053454	310	F. Facility's Pho		
San Jose, CA 95133				<u> </u>	141-0962	
WASTE DESCRIPTION				ontainers	13. Total Quantity	14. Unit WL/Vol.
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NUN D.U.I. REGULATED,	WEVNI MAIEN)		t	DM	40	P
			1	Unc		
				╞───┽		
Additional Descriptions for Materials Listed Abov	6			H. Handling Coo	des for Wastes Listed Abov	/e
11a.CH1713515						
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						1
5. Special Handling Instructions and Additional Info					CY PHONE #: (8)	
27.6	) 1×55DA			GENERAT	OR: Step, L.P. Na	rwaik Station
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11a. Decon Water 기가						
11a. Decon Water 113						
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